

THE
Modern Husbandman:

OR THE
PRACTICE of FARMING:

As it is now carried on by the most Accurate
FARMERS in several Counties of ENGLAND.

For the Month of *May*.

Containing the following Particulars :

V I Z.

- | | |
|---|---|
| I. Of PLOUGHS and PLOW-
ING. | VIII. Of BUTTER. |
| II. Of BARLEY, WHEAT,
&c. | IX. Of HOGS. |
| III. Of WEEDS, and their
Cure. | X. Of SHEEP. |
| IV. Of MANURES and
DRESSINGS proper for
this Month. | XI. Miscellaneous Matters
in HUSBANDRY. |
| V. Of Artificial GRASSES. | XII. Of TURNEPS ; a far-
ther Account of them. |
| VI. Of BULLS, COWS, and
CALVES. | XIII. Of Making and Re-
pairing ROADS. |
| VII. Of CHEESE. | XIV. Of HORSES, MARES,
and COLTS. |
| | XV. Of TREES and IN-
SECTS. |

By WILLIAM ELLIS,

A Farmer, of *Little Gaddesden*, near *Hempstead*, in *Hertfordshire*.

L O N D O N :

Printed for, and Sold by T. OSBORNE, in *Gray's-Inn* ;
and M. COOPER, at the *Globe*, in *Pater-Noster-Row*.

M DCC XLI.

[Price Stitch'd, Two Shillings.]



T

C

R

B⁴

A mo

Sort

Opini

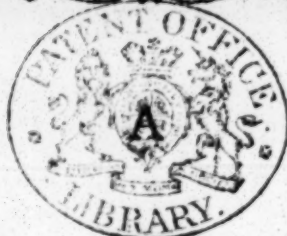
Quan

To re

Sowin

Sowin

To in



T A B L E

O F

C O N T E N T S

For the Month of *MAY*.

B ARLEY, the Nature of Vale Land to sow it in	15
Time of sowing Barley in the Vale	ib.
A most excellent Receipt to increase Crops of Barley in the driest Seasons	16
Sort of Barley to be sown in May	17
Opinion of a Virtuoso about steeping Barley-Seed	18
Quantity to be sown	19
To reduce a four Tith, and make it presently fine for sowing Barley	20
Sowing Barley in Chiltun Land	21
Sowing it in Vale Land	ib.
To increase Crops of Barley by sowing it in Drills	22
a	To

<i>To improve Barley by the Fold</i>	23
<i>Barley fed by some, by others made Hay of</i>	24
<i>Barley eaten by Worms</i>	25
<i>Barley with St. Foyne</i>	26
<i>Barley Crop lost by mow-burn'd Seed</i>	151
<i>Barley Crop suffered by the Ignorance of a Ploughman</i>	150
<i>Bulls, the great Importance of chusing a right one</i>	93
<i>His Marks to get white Calf's Flesh</i>	94
<i>The Death of William Nore, who fought a Herd Bull</i>	101
<i>two Hours</i>	101
<i>Butter, its Nature for several Foods</i>	126
<i>Necessary Utensils for a Dairy</i>	127
<i>The Management of new and skim Milk</i>	128
<i>To improve Cream</i>	129
<i>To keep it sweet in the hottest Seasons</i>	ib.
<i>A second Way</i>	ib.
<i>A third Way</i>	130
<i>To make Butter in a cold Dairy</i>	ib.
<i>To make it in a hot Dairy</i>	131
<i>A second Way</i>	ib.
<i>To make Whey-Butter</i>	132
<i>Butter, to make the Cambridge Way</i>	134
<i>New Way to preserve it</i>	136
<i>Wild Curds</i>	138
<i>To prevent the Rankness of Butter from Leaves of Trees,</i>	
<i>Clover, Turneps, and other strong Foods</i>	133
<i>Two Ways to make Butter in Winter</i>	132
<i>Cows, two died after Calving by ill Management</i>	104
<i>To feed them all the Summer out of Racks</i>	109
<i>The Marks of a good Cow</i>	95
<i>Of Grazing them</i>	103
<i>Their Management in Calving</i>	105
<i>An excellent first Drink to be given a Cow after Calv-</i>	
<i>ing, to keep her in Health</i>	ib.
<i>To make a Cow glean in an Hour's Time for a Wager</i>	107
	To



A Table of Contents, &c.

iii

To prevent a Cow's hoving in Clover	93
To dry Cows for Fattening, several Ways	107
To make Cows take Bull two Ways	108
Calves, to make their Flesh white by Art	97
How particular Soils contribute to make White Calf's Flesh	94
Marks to chuse a suckling Calf by, its first Manage- ment	95
A further Account of weaning Calves	100
Welch Way of fattening and weaning Calves	102
A second Way	ib.
How to know if a Calf will die white or reddish, by only feeling it in the Dark	103
Cheese, its Nature and Management	110
Rennet	112
Welch Way of making Rennet	113
To make bottled Rennet that will keep Cheese sound	114
To make Cheese	115
Cheshire Cheese	ib.
a good thin Cheese	116
Marygold or Carrot Cheese	ib.
Sage Cheese	117
To prevent and cure a Cow's Hoving in Clover	93
Why making Butter and Cheese is more profitable than suckling Calves	134
Cheese, to make fine	117
Slip-coat Cheese to make	ib.
Montgomery Way to make Cream Cheese	118
To make a poor Cheese	119
To make a rich Cheese	ib.
Further Directions to make sound Cheese, and pre- serve it	ib.
Somersetshire Cheese	121
Several curious Matters relating to Cheese	125
Cole and Rape Seed	33
Grasses artificial for the Month of May	76
How to know good from bad Clover-seed	ib.
	a 2
	The

<i>The Manner of Clover's first Growth</i>	77
<i>To sow Clover-seed with Success</i>	ib.
<i>A second Way</i>	78
<i>A third Way</i>	80
<i>A fourth Way</i>	ib.
<i>The pernicious Effects of sowing Clover-seed too early among Wheat</i>	81
<i>A printed Error relating to Clover</i>	82
<i>A second</i>	83
<i>New Method of making Clover-Hay</i>	ib.
<i>The Nature of Trefoil, and making it into Hay</i>	84
<i>The Nature of St. Foyne, and making it into Hay</i>	86
<i>Lucern, its Nature and Hay</i>	87
<i>Artificial Grasses in general, and their Hay</i>	88
<i>The Excellency of the Lady-Finger Grass</i>	89
<i>How a Crop of Clover may be had the same Year</i>	92
<i>How to secure a Crop of good Clover-seed</i>	160
<i>Hops, their several Managements in this Month</i>	54
<i>Hogs, their Feeding</i>	138
<i>To prevent Worms and Garget in Hogs, and to keep them in Health</i>	140
<i>Breeding Pigs</i>	ib.
<i>Horses, Mares, and Colts</i>	168
<i>Grazing Cart and Plough-Horses</i>	ib.
<i>A second Way</i>	ib.
<i>A third Way</i>	169
<i>A fourth Way</i>	170
<i>Grazing Saddle-Horses</i>	ib.
<i>Shapes and M. r's of a good Cart-Horse</i>	172
<i>Shapes and Marks of a good Saddle-Horse</i>	ib.
<i>Description of a good Stallion</i>	173
<i>To make a barren Mare take Horse</i>	175
<i>A second Way</i>	ib.
<i>A third Way</i>	ib.
<i>A fourth Way</i>	ib.
<i>A fifth Way</i>	ib.
	The

The M
 A fur
 The p
 Warr
 Hough
 Hough
 The B
 To pr
 Sever
 Husba
 Manu
 Dung
 Moul
 Vale-
 Dung
 To al
 Alter
 Marl
 Soot
 Ashes
 Penn
 The
 Lime
 Chalk
 Peat-
 Benej
 The
 Dress
 Plou
 Two-
 Two-
 Turn
 Jock
 One-

A Table of Contents, &c.

77	<i>The Management of the breeding Mare</i>	175
ib.	<i>A further Account of the breeding Mare</i>	178
78	<i>The particular Management of a Gentleman in the</i>	
80	<i>Breed of Race-Horses</i>	180
ib.	<i>Warranting a Horse</i>	183
arly	<i>Houghing Beans and Pease</i>	148
81	<i>Houghing with the Dutch Hough</i>	149
82	<i>The Benefit of Houghing Beans</i>	ib.
83	<i>To preserve Colts, when the Mare dies in Foaling</i>	181
ib.	<i>Several Causes of Blindness</i>	182
84	<i>Husbandman Sluggard</i>	11
86	<i>Manures and Dressings for May</i>	60
87	<i>Dung or Muck</i>	ib.
88	<i>Mould and Lime</i>	61
89	<i>Vale-Men wrong in dunging their Land</i>	62
92	<i>Dunging Meadow-ground</i>	ib.
160	<i>To alter red and other Clays, and bring them to a</i>	
onth	<i>Loam</i>	63
54	<i>Alteration of Manures</i>	64
138	<i>Marles</i>	65
keep	<i>Soot</i>	68
140	<i>Ashes</i>	ib.
ib.	<i>Penning Sheep, and dressing Land by them</i>	70
168	<i>The Manure of natural Earth</i>	72
ib.	<i>Lime</i>	74
ib.	<i>Chalk</i>	75
169	<i>Peat-ashes, a farther Account of them</i>	157
170	<i>Benefit of dressing Land, by Urine</i>	153
ib.	<i>The great Benefit of dressing Land with Dogs-dung</i>	
172		154
ib.	<i>Dressing Land with old Thatch</i>	157
173	<i>with human Ordure</i>	158
175	<i>Ploughs and Plowing</i>	1
ib.	<i>Two-wheel single Fallow-plough</i>	ib.
ib.	<i>Two-wheel double Hertfordshire Plough</i>	2
ib.	<i>Turnrise Plough</i>	ib.
ib.	<i>Jockey-wheel Plough</i>	4
The	<i>One-wheel Gloucester Plough</i>	ib.
		One-

<i>One-wheel over-cheek Plough</i>	5
<i>One-wheel under-cheek Plough</i>	ib.
<i>Foot-Plough</i>	ib.
<i>Swing-Plough</i>	7
<i>Two-wheel Wood-chip Plough</i>	161
<i>Bobtail or Creeper-Plough</i>	7
<i>Three-wheel Drill-Plough</i>	ib.
<i>Pulley-Plough</i>	ib.
<i>Horse-breaks, &c.</i>	ib.
<i>Operations of different Ploughs</i>	8
<i>Fallowing a stiff Soil</i>	9
<i>Three Ways more of doing it</i>	ib.
<i>Plowing easy</i>	10
<i>Quick Way to bring Ground into a fine Tilt</i>	12
<i>How to plow a Clover-lay, to make a good Tilt and have a plentiful Crop of Wheat</i>	ib.
<i>Plowing for a Crop of Turneps</i>	13
<i>for Wheat</i>	ib.
<i>Hacking Land for a Crop of Turneps</i>	ib.
<i>Process of Plowing up Bean-Stitches for sowing Barley and Honey-suckle Seed, by some called white Clover</i>	14
<i>Provision, its Scarcity in 1740</i>	158
<i>Rye</i>	34
<i>Roads to make and repair, five Ways</i>	163
<i>Sheep, their several Rots that happened in 1735, 1737, and 1738; and a sure new Remedy, though very cheap, to prevent it</i>	141
<i>Remarks on the Receipt</i>	142
<i>The Cause of the Red-water</i>	144
<i>The Warwickshire Way to cure it</i>	ib.
<i>A second, third, and fourth Way</i>	ib.
<i>To recover Sheep-hove in Clover or Lucern</i>	145
<i>A second and third Way</i>	ib.
<i>Drying Ewes</i>	ib.
<i>Baiting Sheep</i>	146
<i>To make Ewes take Ram</i>	ib.
	To

A Table of Contents, &c:

vii

To have fat Sheep and Beef at Harvest	146
Shearing Sheep	147
Screen round of Wire, a new Invention, and most excellent for cleaning Corn with great Expedition	155
Turneps	34
Weeds in Wheat	
French Wheat, its Nature and Uses	29
its Culture	31
Weld, or Wold, its Culture	32
Weeds, and their Cure	36
Weeding-plough new invented	ib.
Curlock or Charlock to weed	37
Wild-poppy or Red-weed	38
Red and White Dock	39
Fern and Rushes	ib.
Wild Oat	40
Gould	43
Horse-gould	ib.
Crow or Wild Garlick	42
Melilot	ib.
Wild Borrage or Cat's-tail	44
Hogweed	45
Cammock	ib.
Honey-Suckle	46
Thistle	ib.
Wild Teasels	47
Arsenart	ib.
Horse-mint	48
Wild Sorrel	ib.
Colts-foot or Dunny-leaves	ib.
Wild Thetch, Tyne, or Bind-weed	ib.
Black-Bennet	49
Crow-needle	ib.
Cliver	ib.
Darnel	50
Cockle	ib.
May-weed	51
Weeding	

viii A Table of Contents, &c.

<i>Weeding Banks</i>	51
<i>Digging or Weeding by the Mattock</i>	52
<i>Weeding and Cleaning standard Trees</i>	ib.
<i>Weeding Beans</i>	53
<i>To save Crops of Beans from the Dolphin-Fly</i>	ib.
<i>Weeding Pease</i>	54
<i>The cheapest Way of weeding Hop-grounds</i>	ib.
<i>Chefs-Seed</i>	50
<i>Weeding the large white and black Poppy</i>	58
<i>Weeding Dwarf-Roses</i>	ib.
<i>Weeding Lucern</i>	59
<i>Wheat blooming</i>	150
<i>A poor Wheat and Barley-crop that grew together</i>	152
<i>A Field of Wheat weeded by Sheep</i>	ib.
<i>To destroy the Potatoe as a Weed</i>	51, 157
<i>Wheat common, its Condition and Management in May</i>	27
<i>Ragweed</i>	47
<i>Couch or Twitch-grass</i>	48
<i>Weeding several Vegetables</i>	59



THE



51
52
ib.
53
ib.
54
ib.
50
58
ib.
59
150
together
152
ib.
157
May
27
47
48
59

New BOOKS, just Printed for T. OSBORNE,
in Gray's-Inn.

The Four Books of

ANDREA PALLADIO'S Architecture.

W Herein, after a short Treatise of the Five Orders,
those Observations, that are most necessary in
building Private Houses, Streets, Bridges, Piazza's, Xisti,
and Temples, are treated of.

By ISAAC WARE, Esq;
Price Two Guineas bound.

RULES and DEMONSTRATIONS

O F

PERSPECTIVE,

For all Artists in *Painting* and *Architecture*.

I N which is plainly laid down an accurate, easy, and
most expeditious Method, Optically to delineate, after
the Grand Manner, all Designs relating to those two no-
ble Arts. By that excellent Architect and Painter,

ANDREA POZZO.

Engraven in 105 Folio Plates, and adorned with 200 Ini-
tial Letters to the Explanatory Discourses, printed from
Copper Plates, on the best of Paper, in *English* and *Latin*.

Price 1 l. 15 s. bound and gilt.

A Curious Collection of Fifty Antient Paintings, accu-
rately engrav'd from excellent Drawings, lately done
after the Originals, by one of the best Hands at *ROME* ;
with an Account Where and When they were found, and
Where they now are, and several Critical, Historical, and
Mythological Observations upon them.

By GEORGETURNBULL, LL.D.

In One Volume, Folio.

(Price One Pound Five Shillings, sew'd in Boards.)

A N

*New Books just Printed for T. OSBORNE,
in Gray's Inn.*

AN UNIVERSAL HISTORY, *from the earliest Account of Time to the present*: Which comprises not only the History of the World, but of each Empire, Kingdom, and State, from its first Foundation to its Dissolution, or to the present Time; with an exact Account of the Migrations and Conquests of every People, the Successions and Reigns of their respective Princes, their Religion and Government, Trade, Customs, Learning, &c. The Whole forming

A Compleat Body of History, and in itself an entire Library:
Being a Common-Place of the various Historians, both Antient and Modern, of all Nations and People under the several Forms of Government, brought down to the present Century, properly related and digested. Immediately extracted from original Authors, illustrated with Maps, Cuts, Chronological and other Tables.

Gentlemen may begin this Work by buying a Volume at a Time, furnish'd with the whole five Volumes, upon applying to T. Osborne in Gray's-Inn.

B. This Undertaking is so well executed, and in such Esteem abroad, that it is translated into several Languages in different Parts of Europe.

A C O M P L E A T
B O D Y of Antient G E O G R A P H Y,
B O T H

S A C R E D and P R O P H A N E :

Exhibiting
TH E various Empires, Kingdoms, Principalities, and Common-wealths, throughout the known World, in Fifty two Maps, selected from the best Authors.

To which is prefix'd,

A Copious INTRODUCTION to Antient GEOGRAPHY: Containing an Account of the ORIGIN of KINGDOMS, and the various Changes they have undergone.

Interspersed
With Critical Remarks upon several Antient and Modern GEOGRAPHERS, whose Mistakes are pointed out and corrected.

Now first translated from the *Latin*,

By the Learned G. HORNIUS, Professor of History in the University of *Leyden*.

The *Third Edition*, Enlarged with Eleven Maps of LAURENBERGE and BLANCAED.

Printed at the H A G U E, 1741.





P R E F A C E.

For the Month of *May*.



*I*N this Monthly Treatise of the MODERN HUSBANDMAN, I begin with those most useful Articles, Plowing and Sowing; and intend to pursue the same Method throughout the whole Work; and these, as they are now performed by the most judicious Farmers for a Livelihood, in the several Operations of Broad, Bout, Ridge, and Drill-work, by the Two-wheel, One-wheel, Foot, and Three-wheel, and Pulley Drill-ploughs, Horse-breaks and Sheims, &c. Of all which I shall be the more
A parti-

particular, because no Author has ever yet published the common practical Ways of these Instruments, as they have been, and are at this Time, in Use : Which I could not do, had I not travelled several Years for informing my Judgment, by making Observations on the numerous Objects that presented themselves to my View, as well as conversing and corresponding with Gentlemen, Farmers, and others ; by which, with the twenty-four Years Experience in the Management of my own Farm, and the Knowledge of my Neighbours and Country's Practice, I am enabled to compose Monthly Books of Facts, without being beholden to a Mass of uncertain Theory. Agriculture began with the World, and was the Employment of its first Inhabitant, who was to get his Bread by the Sweat of his Brows : Therefore, as to its Antiquity, it, undoubtedly, may be dated from Adam, who was placed in the terrestrial Paradise for cultivating it, and enjoying its Fruits by the Help of the Spade, Plough, or other Instrument : An Invention not since altogether found out by fortuitous Accidents, as some have vainly conjectured, almost into a Notion of Certainty. But, waving insignificant Niceties of Dispute, it must be owned, that the Improvement of Agriculture, within these very few Years last past, has made our Britain and Ireland exceed all Countries in this Science ; and happy for us it is so, since, as the World grows older and more populated, the good Providence of God has wisely contrived it, that, with Necessity, Wisdom should be given to Men to find out Ways and Means to supply

P R E F A C E.

v

supply it. And, as nothing can more contribute to this great End, than to refresh and fertilise our Mother Earth in the quickest and cheapest Manner, it is most true, that the Plough can answer this Purpose beyond all other Inventions. And, as the Creator has been pleased to make this World abound with different Earths and Situations, it is incumbent on the Farmer to furnish himself with that Sort, which best suits the Nature of his Land. Hence it is, that the Wheel-plough, or any of the Drill-kind, is as useless in some Vales, as the Foot-plough is in some dry stony Grounds of the Chiltern: For, though the Soil and Seed be good, the Manure plenty, and all other necessary Contingencies are compleatly furnished; yet, if the Plowing-Part is not performed in due Order, our Return at Harvest will, in Course, be the less. Wherefore, as God provides for many good Things of this World, by the Labours of the Ploughman, it is our necessary Business to find out all possible Improvements relating thereunto; as the late dreadful Scarcity of Corn, &c. in 1740, is a most woful, but plain Proof of. The Labours of a Country Life will rise in our Esteem, if, besides their Agreeableness to our Nature and Frame, we consider them as the Source of all the Wealth of the Nation: Trade and Commerce, which are esteemed the two greatest Fountains of national Wealth, cannot have Place, but in the Foundation of this original and natural Employment. Agriculture not only furnishes Wealth to a Nation, but Hands also able and willing to defend it, and is, perhaps, the

best Nursery of good Soldiery in the World ; and the Country Life, which thus qualifies Men for necessary Defence, naturally introduces a Disposition averse to civil Tumult and offensive War : The Occasion over, their Swords easily convert into Plough-shares, and their Spears into Pruning-hooks. Agriculture was, perhaps, the Parent of all those Sciences, Arts, and Employments, which have since carried their Heads so far above her : But it rises still higher, and reads continual Lectures, not only in Speculative, but Practical Philosophy ; it conducts to Morality, and every social Virtue ; and enforces a due Regard to, and Dependance on the Supreme Being ; in which consists the Essence of Religion. As to the chief Particulars in this, and in the Eleven Monthly Books that are to follow, they are too many to be mentioned here ; therefore I shall conclude this Preface with giving you only a Hint of a very few of them, as follows, viz.--The Article of Suckling House-lambs, I am sensible, has been wrote on by Mr. BRADLEY ; by my Account, it may be carried on by those Farmers, who never saw the Business performed in their Life, and that in the most profitable Manner, by causing Ewes to take Ram at any Time, and lamb twice a Year ; whereby several Cities and great Towns will undoubtedly, and in a little Time, be supplied with that dainty Food House-lamb all the Year, as is done at London. The like Profit may be had by the Flesh of suckling Calves, which, by several artificial Ways, may be made very white, and soon fat. The new-invented,

vented, light, Three-wheel and Pulley-ploughs, which plow, sow, and harrow, all at a Time, with only one, or two Horses at most; and the Horse-break and Dutch Hough, which, in a few Weeks after, is to follow it, are such serviceable Instruments, that, I am sure, Thousands would have, if they knew their Benefits in all dry Loams, or in any other Soil, where a Drill can be rightly made, and the Owner's Conveniency will allow of it, for sowing Tetches, Pease, Horse-beans, Kidney-beans, Barley, Wheat, &c. therein, as it is now done by Farmers for a Livelihood. In February, 1738, I sent the Three-wheel Drill-plough and Horse-break into Yorkshire, to a Gentleman who has since expressed himself with Abundance of Satisfaction. Likewise the Improvement of Hop-plantations by the new-invented Prong-plough, Hough-plough or Sheim, Prong-spade, Prong-bough, and Beck-bough, as they are frequently used by some of the most ingenious Husbandmen, to their great Advantage. The invaluable Receipt, to prevent Sheep's Rotting in the worst Ground, I learned of a Farmer, who saved a Flock of three hundred by it, when all his Neighbours Sheep died in the same Soil and Situation; being a Remedy so easy to come by, that it may be had in most Villages for about a Penny Charge, which is enough to secure a Sheep's Health six Months. Several Ways to make a Cow take Bull at any Time, and stand to it, according to the Cheshire, Suffolk, and other Practice. To make Butter in the sweetest Manner, after a Method approved of by the
Royal

Royal Society : *Also to prevent its being tainted by Leaves, or other rank Food ; and likewise a Way to make it presently, without Churning ; with many other valuable Secrets relating to the Dairy. To make many Sorts of Cheese. Infal- libly to prevent the Fly's Destroying young seedling Turneps for Two-pence an Acre Charge in all Weathers, and to cause the Seed to sprout in a very little Time after it is sown, in the driest Season. To hinder the Slug's doing Mischief to young Turneps, Savoy's, Flax, &c. in dry, or wet Weather, without the Help of Soot, Lime, Tobacco-sand, or other powdered Application. To keep off the Damage of Field-fowls from Turnep- seed, new-sown Corn, or Fruit-trees, at any Distance from a House, by a Mixture of cheap Ingredients. To sow Barley in April, and yet be as forward as that sown in March ; and to in- crease a Crop for Six-pence an Acre Charge, without the Help of Nitre, by which the Damage of Frosts, Chills, and Droughts are mostly pre- vented ; and which will keep off the Spoil of Worms, both in this Grain, and new-sown Wheat. To cure Distempers in Horses, Cows, and Sheep, as practised by Farmers. To keep off the Breed of the Caterpillar from young Turneps, Cole, Cabbages, and other Plants. To prevent the Garget, or any other Inflammation, in a Cow's Bag, and to increase and sweeten her Milk by a cheap Drink given but twice to a Cow, as it is done in common by the Dairy Farmers in a cer- tain County. A new Method to supply the Loss of wild Pheasants by breeding them tame, as it*

is now
Rents,
How
other
Farmer
perfe
at the
Hens,
Canary
the g
sure a
for p
Worm
ral ne
Stale.
the B
Farm
but fo
severa
Horse
Accor
trees
able
and n
the I
other
Expe
whic

P R E F A C E.

ix

is now done by several Farmers for paying their Rents, and is a vast and cheap Improvement. How to destroy the Fox, Badger, Polecat, and other Field Fowls, that are pernicious to the Farmer, by new and easy Ways. To keep Eggs perfectly sound two Years for no Charge, so that, at the End of that Time, they may be set under Hens, as well as new-laid ones. The Culture of Canary, Coriander, and Carraway-seed, Teasels, the great-headed Poppy, and Dwarf-roses. A sure and most cheap Way to prepare Wheat-seed for preventing smutty Ears, keeping off the Worm, and causing a greater Increase, by several new Ways, without the Help of Brine, or Stale. To breed that delicate, large, hardy Fowl, the Bustard, as tame as common Turkeys in a Farm-yard, at the same Trouble and Charge, but for three Times the Profit. An Account of several Impositions practised in the Sale of Cows, Horses, &c. And that very useful, but copious, Account of raising Plantations of proper Fruit-trees; with a Thousand other curious and profitable Matters (never before published) which this and my other Monthly Books will contain, from the Experience of myself, Neighbours, and many others; who, undoubtedly, have been at great Expence and Labour in finding them out, and which, thus, may be enjoyed for a trifle Cost.

N. B. I

N.B. I furnish any Person with the *Three-wheel Drill-plough*, *Horse-break*, and other Instruments usually employed in Farming, to any Part of *Great-Britain* or *Ireland*, at reasonable Rates ; and answer all Letters, provided Postage is paid to my House.



T H E



with
one
Gron
Plou
give
A
Falle
now
Plou
iron
mad
whic
that
plov



CHAP. I

Of Ploughs and Plowing.



YOU that have not begun Fallowing in last Month, fail not to do it in this. In the *Chilturn* or Hilly Country, it may be performed with the two Wheel single Fallow-Plough, with the two Wheel double Plough, with the Turnrise-Plough, and with three Sorts of one Wheel Ploughs, &c. In the *Va'e*, or low Grounds they use but two Sorts, The Swing-Plough, and the Foot-Plough : Of these I shall give particular Accounts, as follows :

And first I shall begin with the two Wheel single Fallow-Plough ; of which there are several Sorts now in Use. One is called the *Hertfordshire*-Plough, whose Ashen-beam is nine Feet long, its iron Share four Feet, four Inches in Length, and made with two Mortaises, weighing about 50lb. which by the Help of a broad Board so fortifies it, that it is strong enough, with its pecked Point, to plow through the most stony Land in this Country,

B

whose

whose dry Gravels, tenacious Clays, and large Flints, very often try its Strength, and sometimes break it; for which Reason we are frequently obliged to draw with four, five, and six Horses, who find Work enough to manage an Acre and an half in a Day in dry Seasons. The Plough-man also is very often hard put to it, because he must be both an able and skilful one, to hold this Plough in such Weather and Ground in the Fallow-time: When the Stones cause the Handles to jirk and strain him to that Degree, as defies an ordinary Work-man to do it as it should be; and thus in some of our hard gravelly Lands, they will wear out two or three Points in one Day, which cost six Pence each. Its Land-Wheel is 21 Inches wide, and its Thorough Wheel 24 Inches, and is drawn by Horses in a double Row.

The two Wheel double Hertfordshire Plough. This has two broad Boards, two Shares, two Coulters, and but one Beam; but I shall here decline the particular Description of it, because I have amply done it in my last Monthly Book, *Page 97*, where you may see its excellent Uses, which, if thoroughly known to the World, would invite many Farmers and Gentlemen to send for them at twice their present Cost. And as I have had several Letters of late for this Purpose, to know first how much the Price of one is, I shall here, to save the like Trouble, set it down, *viz.* The Wood Work of the bare Plough, exclusive of any Part of the Wheel Carriage, will cost 16 s. The Iron Work of only the two Shares, two Coulters and Hooks, will cost 4d. *per* Pound, weighing in all near 70lb. so that the Plough alone will cost 40s. and as for the Wheel Carriage, it may be had in many Counties where the Plough Part cannot.

Turnrise-Plough. This is also a two Wheel single Plough, and far lighter than the last, because, though



though its Wheels are higher, its Share is less than eighteen Inches long, being made with a round Socket and Point, weighing ten or fifteen Pounds, has no broad Board, but instead thereof, a roundish moveable wooden Turnrise, about four Inches Diameter and a Yard long, which, at every Land's-End, the Plough-Boy scrapes in wettest Weather, and shifts in less than a Minute to the other Side, whereby it will plow a Field without Hentings, and Losing Time and Labour to go round its Work, as all our *Hertfordshire* Ploughs are obliged to do, and is also of so clever and strong a Make, that it will out-do ours in plowing among large rocky Stones, and entering the Earth deeper, by the Help of its round Share and Timber; which is so very serviceable, that I heard of an obstinate Farmer, who going out of our County, to live towards *Orford* in *Kent*, would make Use of no other than our broad Board-Plough, till he run himself out of several hundred Pounds: But at last being persuaded to lay it by, and work only with the Turnrise Sort, as his Neighbours did, he recovered his Losses; and the Reason they assigned me for his Running out was, that, his Farm being a very deep Mould, our *Hertfordshire* Plough would not go deep enough to extirpate the Roots of Weeds, and raise the best Earth, which the Turnrise would effectually do. This Instrument is likewise most serviceable in plowing the Sides of steep Hills, which it will do the best of all others, because it plows the Ground all one Way, that no Sort whatsoever besides can perform so well; and is of the greater Use, by Reason the making of Hentings, and Plowing two Ways, according to the common Method of round Work, will not here answer the Farmers Purpose. In short this well invented Machine will plow up their hard Chalks, Gravels, and stony Clays in Fallow Season, better

than any other Sort whatsoever, and will perform round Work, or any other Operation, that a Fallow Wheel-Plough is used to do. There are also some of these with a flat Chissel Point about two Inches wide.

The Jockey, or Flemish, two Wheel single Plough.—

Is used in Fallow and other Seasons in sandy and light Loams, having only its single Staple for a Handle, by which the Plough-man wholly guides it by one Hand, and at the same time with the Help of a small Cord or Line, which he fastens to the Horses Bits, he drives two Horses a-breast, and one before, and sometimes three in a-breast, but commonly only two, all Day long without the Help of a Boy; and that in performing most Sorts of plowing, being a much lighter Instrument than all others that I ever saw of the Wheel Sort. Its turn up Beam being about six Feet and a half long: Its flat winged iron Share weighing about eight Pounds, being a Foot in Length, made to put on a Socket of Wood, and held steady by an iron Hook from the Beam, with a broad Board of Wood, but generally with a thin hammered Iron one, where there is a weak Team: But if it is a strong Team, they have of late got into the Use of one made of Cast Iron, that costs about six Shillings, and will wear many Years. This light short Plough is drawn by a high Carriage, whose Wheels are above two Feet Diameter, sometimes ringed with Iron, and sometimes with intire Wood lapped round the Spoke; and though this has but very lately come into use in *England*, yet it has in many Places supplanted the Foot-Ploughs that were in use before this.

The one Wheel Gloucestershire single Fallow-Plough.

— This, though it has been in *Gloucestershire*, and elsewhere, some Time, is but lately introduced among our Farmers, as being much lighter than our two Wheel

Whe
Worl
two
its fir
End,
Grou
Land
Hors
Hert
Whe
differ
Whe
and
Land
thus
that
O
Plou
Foot
rectly
It pe
Sock
and
to gr
after
men
thes
a cer
Sum
This
little
some
will
and
pret
next
T
Sort

Wheel Fallow-Plough both in its Wood and Iron Work, has a Share with only one Mortaise, has two fixed Handles, a Yard long each, which, with its single Wheel, joined to the Beam near its fore End, keeps its pecked Share from entering the Ground too deep, and makes it turn easy at the Land's-End; all which Conveniencies save one Horse in four, in Comparison of the two Wheel *Hertfordshire* Fallow-Plough: In short, this one Wheel Plough, which is drawn by Horses in length, differs from some of the Foot-Ploughs only in its Wheel, whose Diameter is about eighteen Inches, and will perform various Works in our *Chilturn* Lands; but its Wheel is very apt to overturn, and thus becomes troublesome to the Ploughman, so that now it is in less Repute than before.

Overcheck one Wheel Plough.—This new invented Plough is also worked with one Wheel, of about a Foot Diameter in the Clear, that turns round directly under, tho' at some Distance from the Beam: It performs well in sandy, stony Lands, because its Socket Share is fixed on a round Piece of Wood, and goes steady: It is also used in chalky Grounds to great Advantage, because it proves a light Plough after the Horses. We are Strangers to this Instrument in *Hertfordshire*, but I have seen several of these, as well as the Under Cheek-Ploughs, used in a certain County that I have travelled through this Summer 1738. *Undercheck one Wheel-Plough.* — This differs from the Overcheck Sort, only by a little Alteration in its Make, some have one, and some the other, even in the same Parish. One will not clog in dirty Weather so soon as the other, and therefore preferred by some; they are both pretty Sorts of Ploughs; but more of these two in next Month.

The Foot-Plough. — Of this there are several Sorts, one with a straight Beam, between eight and nine

nine Feet long at *Chesterford*, near *Saffron-Walden*, that I have seen drawn by two Horses in a-breast, in a light loamy Ground, and drove only by the Ploughman without a Boy, by the Help of a four Horse Coach Whip, whose Thong and Lash I measured to be above nine Feet. But the common Sort of Foot-Plough has its Beam a little bending towards the End, of about six Feet long, a broad Share, and is used chiefly in ridging up Vale Lands, and casting them down. This, for its extraordinary Lightness, of late is drawn by two and three Horses in Length, in our *Chilturn*, gravelly, and stony Grounds; because, by the Help of a pecked Share, it saves the Draught of one Horse in four, which we are obliged to use for the same Work with our two Wheel Plough.

The single Mortaised Foot-Plough is used in our *Chilturn*, stony Grounds, to draw out the Sleaving and Ridge Thoroughts of the Wheat-Stitch, and which is immediately followed by the Wheel Wheat-Stitch Plough, that hents up and finishes the Stitch; and why the Foot-Plough does not perform the whole Work, is, because it is apt to wabble, and not go so straight as the Wheel one; yet this may be contrived to go more steady and even, if it is made with two Mortaises and a pecked Share, as some have them. Others for this Purpose, instead of an iron Foot, have a small iron Wheel, about six Inches Diameter, that causes an easier Draught to the Horses, when they perform the last Plowings with it, for sowing Barley, Turneps, French Wheat, Weld, &c. by only two Horses in length, which helps forward the Sowing of Corn with a weak Team. The Foot-Plough is also very valuable for plowing up Turnep Ground shallow, that the Sheep's Dung may not be buried. The same Conveniency answers when Pease are sown, broadcast, and plowed in, Operations that cannot be so well

Of Ploughs and Plowing.

7

well performed by the Wheel-Plough, because it goes so deep, as makes it apt to bury the Corn; and many Crops have suffered by this very Means.

The Drill three Wheel Plough.—In my next Monthly Book I shall give an Account of this excellent Instrument, and so of the *Pulley Drill-Plough*, which is also of very great Service; *Breaks, Hough-Ploughs, Prong and other Spades*, are likewise to be described in the next Monthly Book, and their several profitable Uses amply explained.

The Swing-Plough, — Is a Sort of Foot-Plough, much used in *Middlesex*, in their flat clayey Grounds. Its Beam is raised higher, or lower, at Pleasure, by Ropes fastened to a Cart-saddle on the hindmost Horse. With this light Instrument they lay up their Lands in three and four Bouts, and it is drawn commonly by Horses in Length: And it is in this Sort of situated Earth, that I observed they often lose great Part of their Crops for Want of getting it into a timely Tilth, which in my humble Opinion they might more expeditiously do, if they used our two Wheel Pea-Stitch Plough, or a narrow Fallow Wheel-Plough, in the Summer-time especially, after their Ground has been fallowed by their Swing-Plough. And that, by plowing it across into single sharp Bouts, and afterwards by plowing them down again with the same; which, after due Harrowing, may then be plowed, with their Swing-Plough, into their common three and four Bout Lands, in order to sow Wheat.

The Creeper or Bobtail-Plough,—Is a two Wheel-Plough, differing but very little from the Fallow Wheel-Plough, but that its Share is only three Feet in Length, and but one Iron Mortaise. Its Work is to plow up Stubbles, particularly in *Chilturn* Land, in wet Weather, because its Share, not being fastened to a Staple behind, gives room for the Earth to tumble off, that it does not hang on,
and

and load the Plough, as it is apt to do in the long Shared Sort. Some so affect this Plough, that they make it their common one in Fallow and other Seasons: But in very dry hard Grounds, this Plough is not capable of making its Way so easy as the double mortaised Fallow Wheel-Plough can. But there are several other Sorts of Ploughs that are to be used out of the Fallow Season, that I intend, in proper Months, to give an Account of. In the mean time, all, or any of the before mentioned, if any Person thinks fit to furnish himself with, I will do it at their prime Cost, only allowing me what is reasonable for my Trouble. For where a Farmer occupies a hundred or more Acres of arable Land, he cannot be compleatly furnished without most of these Sorts, especially if he lives in a *Chilturn* Country, and his Ground is of several Natures, which is very common. But I will suppose it to be only one Sort, and that a Loam; they are then still necessary, because of the several Conditions their Ground may be in, in different Seasons of the Year, &c. A Proof of which is obvious in the more plentiful Production of Corn, Turneps, Grass, and other Vegetables on the Land of him who is Master of most Sorts of these Ploughs.

Operations of different Ploughs.

Fallowing a stiff Soil. — If a Crop of Beans or Pease grew last on four thorough Stitches, then either with the double, or any of the single Fallow-Ploughs, plow them into four thorough Stitches again; the first will do it at a Bout, or going once backward and forward, when the single one must be drawn four Times in all; and by this Sort of plowing is almost all the Ground removed, so that, where the great Partition-thorough was before, the Ridge of the Stitch lies now. The next time, or the first Stirree, plow it again in the very same Manner;

Manner ; but, the third Time or second Stirree, the Stitches should be plowed into Bouts, with the single Fallow-Wheel-Plough. After this it should be thoroughed down, and harrowed plain for plowing the Ground next Time cross-ways, and sowing Wheat in Stitches.

A second Way to fallow a stiff Soil, — Is to plow Barley, Oat, or Pea Subbles, that lay in broad Lands before, into broad Lands again, which is what we call clean Plowing ; and, after it has lain some Time, either harrow it or forbear, as the Ground is more or less fine, and bout it a-cross ; then, at the next Operation, bout it again off the last Bouts ; after this, thorough it down, and harrow it plain for plowing, and sowing Wheat in Stitches, or broad Lands. These are the two best Methods for reducing stiff Clays, or four Loams, into a fine sweet Tilth against *September* for sowing Wheat, for these tenacious surly Soils will seldom yield to a single Bouting ; therefore, for Assurance, the most judicious Husbandmen, in our *Chiltun* inclosed Country, commonly give them two ; however, this Work should have been begun in *April*.

A third Way.— 'Tis the Method of some to fallow their stiff Ground which lay last in broad Lands into Bouts ; the next Time they plow it into Bouts again, after this, they thorough down the Bouts, and harrow it plain, when it is ready to plow and sow their Wheat. But this last is not so good a Way as the two former, because it does not clean the Land so well ; however, this ought to be well observed, That two Boutings are better than once four Thoroughing, tho' the single Wheel-Plough goes not oftener in two Bouts than in one four thoroughed Stitch ; yet is the Bouting far more preferable on Account of its laying the Land deeper and sharper up, for the Sun and Air to penetrate its Body the easier.

C

A fourth

A fourth Way.—Others again having Pea-Stitches, which, when last sown, were harrowed down very flat, which Posture makes them fallow it into four thorough Stitches a-cross the former, and after they have lain some time, they harrow them lengthways, and make Bouts off the four thorough Stitches; then they bout it again, but the next time they thorough them down, plow, and sow their Wheat in Stitches on a stiff stony Ground. As I said in last Month, better an *April* Sop than a *May* Clot; yet this Neglect often happens, by Reason they have no other Grass than what the Fallow-Land affords to feed their Ewes and Lambs, but then such Farmers run a great Risque of a good Tilth, either for Turneps or Wheat; however, better late than never, remembering well that a late Fallow makes a raw Tilth, unless a dry Summer succeeds. Again, the Effect oftentimes of a late Fallow is, that your Wheat will be overtaken the following Year with the destructive black Benet, &c. which generally, where it is thick, ruins a Crop of Corn, and then see if Weeds will pay Rent. The good Husbandman, who fallowed the Beginning of *April*, the latter End of this Month, will be making his first Stirree, when the bad one will be only fallowing his four Ground, as may be too often seen in but little Distances, with Regret, by Men of Judgment, who travel the Country.

Plowing easy.—Now you, that keep but two or three Horses for plowing *Chilturn* stiff Land, may very likely, in this Month, meet with dry hard Soils, that require four or six Horses to draw the Wheel-Fallow-Plough, which turns a Thorough of 12 or 14 Inches broad, and proves too hard for weak Teams. To remedy this, use the Wheel Stitch Pea-Plough, which turns only a Thorough of about eight Inches broad, and you'll find it go easier by one Horse in four than the other can; and indeed it

it is much better for the Land, because it cuts it into narrower Thoroughs, and therefore fines it sooner, and prevents the Growth of Weeds much better ; so likewise will the before-mentioned one Wheel, or Foot-Plough do as being much lighter in its Iron and Wood Work. But where you have a strong Team, the two Wheel Fallow-Plough will certainly do the most Work in the least Time ; and where there is Occasion to use this sort of Plough much, it is very well worth while to have two Sorts of them, one to plow Bouts with, and the other broad Lands ; that for Bouting should have a broad Board an Inch higher than the other, that it may lay up the Ridge secure and sharp, and its Sheaf and Share pitched more landing than the common Sort. But, besides the Pea Stitch and Foot-Ploughs, the Bobtail-Wheel-Plough is now much used for a weak Team, for that its picked short Share will not clog like others, but is lighter both for the Horses and Man.

The Sluggard Husbandman.—It is an old Saying, that the Sluggard Husbandman succeeds once in seven Years, but of late it fell to his turn oftener, for, in the Years 1734 and 1738, the Weather was so mild and wet, that it caused the well-dressed Grounds to produce such rank Wheat, that it yielded hardly above half a Crop of Corn, but a great deal of Straw, and at the same time so fertilised the poor rough tilled Lands, as made them return full Crops. We say a dry *March*, a wet *April*, and a dry *May* make Plenty ; but if these three Months are wet, there will be a great deal of Straw, and little Corn. But now you, who bouted up your Oat and Pea Stubbles, for sowing Turneps in *June*, should have bouted them off the last Bouts in *March* or *April* at farthest ; but you that bout for Wheat, and have not done it last Month, neglect it no longer than this. He is an ill Husbandman that has a Tilt to make, when he wants it.

A quick Way to make a Tilth. This I never knew but one Man do, which was after the following Method, viz. at a Fallow-time, either in this or last Month, where the Ground was not too clung and hard, he bouted his Stitches or broad Lands, till he had done ten Bouts ; then immediately returned where he begun, and bouted off the last Bouts, and in this Manner proceeded till he had done the Field: Now why he plowed in this uncommon Method, was to make a Tilth of the Ground as soon as possible, for single Boutting, in it self, is reckoned but half Plowing, but this double Work in one Day is whole Plowing ; yet I don't doubt of an Objection in this Case, and that is, by so doing, he turns up the Grass again, which he plowed in the first Bouts ; to this I answer, that it is an Argument of no great Force, because the Earth is all, or most of it, removed from one Place to another, and thereby in a great Measure prevents the Re-growth of the Grass and Weeds; but there will be no need of any such Objection, if such Bouttings are performed in dry Weather, for then one Plowing is oftentimes better than two in wet Seasons.

How to plow a Clover-lay, in order to obtain a good Crop of Wheat.—You that design to sow Wheat in a good Tilth after Clover, plow it up immediately after the first Crop is eaten or mowed off (as is commonly done in this Month) into broad Lands, for the Crust to lie and rot ; then, about six Weeks after, harrow it plain ; when this is done, hack it across, and so let it remain till after Harvest; then harrow it soundly, and if it is fine enough, dung or fold, and sow Wheat in Stitches : But if it is not a thorough good Tilth, hack it a second Time across the last Way, then harrow it plain, dung, and sow.

Plowing!

For W
the fir
ing in
closed
ing, an
Bouts,
Wheat
broad
ing of
no Gui
wherea
off an
that ca
round
man in
an exc
Wheat
hollow
Metho
Rains,
Bou
some
April
it acro
is to
in the
thwart
harrow
Way,
and m
Har
also,
broad
is com
after t
are to

Plowings to be performed in May.

For Wheat.—Towards the latter End of this Month the first Stirree, or second Plowing after Fallowing in *April*, is generally done in the *Chillturn* inclosed Fields; this is by some called *Twy-fallowing*, and is either performed in broad Lands, in Bouts, or in four thorough'd Stitches, for sowing Wheat in *September* or *October*: If in Stitches, off a broad Land, it is the most difficult Sort of Plowing of all others, because the Plow-man has here no Guide, but his own Judgment to direct him; whereas, when he makes a Stitch off a Bout, or off an old Stitch, he cannot well miss it; but he that can raise a four thorough Stitch, and lay it round and handsome off a broad Land, is a Workman indeed. This therefore, as I said before, is an excellent Way to prepare all stiff Grounds for Wheat, because it best kills Weeds, sweetens and hollows the Earth, and exposes it beyond all other Methods, to receive the nitrous Influences of Air, Rains, and Dews.

Bouting for Turneps.—In this Month likewise, some will stir that Land which they fallowed in *April* in broad Lands; thus, they first harrow it across, and then bout it across; after which, it is to lie some Time, then they back-bout it; in the next Place, they first harrow it plain overthwart, and plow it across into broad Lands, for harrowing in Turnep Seed. This is an approved Way, to reduce a stiff Earth into a sudden Sweetness, and make it very fine with all.

Hacking for a Crop of Turneps.—In this Month also, that Ground which was fallowed in *April* into broad Lands, for sowing Turneps in *June* or *July*, is commonly stirred in this Month into Hacks, which after they have lain a Week or Fortnight, the Hacks are to be harrowed across; and then, just before they

they sow Turneps, they draw out their Thoroughts across, and plough across, the last Way into broad Lands, in which they harrow their Turnep-Seed; and thus a stiff Soil is expeditiously brought into a Fineness, for this useful Root to grow into a desired Bigness.

A Process of plowing up Bean Stitches, for sowing Barley and Honey-Suckle Seed.—In November 1735, I plowed a Field of four thorough Stitches into four thorough Stitches again, which lay in this Posture till the Beginning of March, when I back-bouted the Stitches, and let them so remain till about the first of April, and then I harrowed it plain: After this I plowed the Ground into broad Lands a-cross the last Way, and immediately, on the rough Earth, I sowed short Horse-dung well rotted, that I had saved under Covers the Winter before, mixing with it Rabbit-Dung, Hen-Dung, and Ashes, which, with the Help of Chamberlye, made together a rich Composition; then I directly sowed two Bushels of Barley Seed all over one Acre of this rough Land, and harrowed it plain once in a Place after the Seeds-man; which as soon as done, I sowed two Bushels more of Barley all over the same Ground, that was fallowed by the Harrows twice in a Place, the same Way it was done before: Then I sowed 16 Pound Weight of Honey suckle Seed, and only harrowed it once in a Place across the last Way, which filled in the Thoroughts, and laid the Ground all even; thus I finished a one Acre Field, that was in this Manner laid down for good, to become a Meadow in time for feeding Cattle. And here I should have published a Case, that a Gentleman sent me, of converting a low wet grazing Ground into plowed Land, by way of Improvement, with my Answer to the same; but I have not Room. N. B. I answer Letters between Michaelmas and Lady-Day, provided Postage is paid to my House.

C H A P. II.

Of Barley, Wheat, &c.

THE Nature of Vale Land for Barley.—In the large and fertile Vale of *Aylesbury*, as well as in most other low Grounds, their Earth is generally of a black and bluish Clay, or a marly dark coloured Loam, clear of Stones, which in Winter is very apt to stolch by the Tread of Cattle, and by the Wash of frequent Rains that easily converts it into a muddy Consistence, and in frosty Weather from a stiff Clot, it is presently reduced into a short crumbling loose Body, which readily lets out the spiry Blade of new sown Corn; also in this their low Situation, they are very apt to suffer by Floods, which sometimes are so long retained on their stiff Soil, that the Vale appears almost like a little Sea, ruining their Grain, and rotting their Sheep: On the Contrary, in the Summer Time, their open Fields are soon dried, and their clayey Surfaces become so hardened, as to cleave asunder much more than any other Sort of Land, whereby their Barley in particular is often stunted in its Growth, and dwindles into a short, lean, thin Crop, on their high, exposed, ridged Lands; which at first was invented for the Security of their growing Corn against overflowing Waters.

Time of sowing Barley in the Vale.—The Vale-Farmer thinks he runs a Risque of the least Danger, when he sows his Barley about the Twelfth of *March*; for though, by this early Sowing, he is under the more Danger of being hurt by Floods and Frost, yet is he also intituled to the Hopes of a moderate, moist Time afterwards, that may bring on such a timely Head of Barley, as to cover and shade its Roots soon enough, to withstand a dry

dry Summer, and so enjoy a plentiful Crop at Harvest. But if, to avoid the ill Effects of *March* Floods and Frosts, they should defer sowing their Barley till the Beginning of *April*, which they seldom do, then they are under no less Apprehension of suffering by succeeding Heats and Droughts; so that after plowing, sowing, and paying Rent two Years together (which they here do when they fallow for Barley) without receiving any Profit, they frequently come off with half Crops. Now to prevent the great Losses that thus may happen to Crops of Barley, if sown late in *April*, and even at the Beginning of *May*, observe the following Account, viz.

A most excellent Receipt for increasing Crops of Barley.—Take one Bushel of Barley, and boil it in six or more Pails of Water, till the Grain bursts: Strain out the Liquor, and give the Barley to the Fowls or Hogs; while the Liquor is hot, dissolve in it three Pounds of Crystal Nitre, and a Quarter of a Pound of green Copperas in Powder: To which add one Quart of pure Soot, and as many Pailfuls of Water that drains from a Dunghil or Urine of any Sort, as will, when the Grain is put in, make the Liquor swim four or six Inches above it. Now observe, as soon as the Nitre and Copperas are dissolved, and while the Water is hot, to pour it on three Bushels of Barley Seed, into a Tub with a Cock and Tap Whips, and then immediately put in the Dunghil Water and Soot, as aforesaid. Let the Grain lie soaking herein, from one Evening to another, when the Liquor must be drawn off, and the infused Barley laid in a Heap all Night, on a Floor to drain. The next Morning, with a Shovel, mix it well with powdered Lime, and carry it in a Sack to be sown in the Field. The Liquor that is left will serve again with fresh Addition, and is admirable to water a Garden

Garden, or make a Tree grow to Perfection in Half the usual Time, if judiciously applied ; and thus you may carry on your Sowing of Barley many Days, by as often renewing the Preparation I have here plainly given Directions for : And accordingly, by punctually observing them, you will, by the Blessing of God, certainly find the Barley to spread with large Blades, and be of a blackish, green Colour, soon after it appears above Ground ; for it is the Nature of the Nitre to agree so well with this Corn in particular, as to cause it to grow up into twenty, thirty, or forty Stalks, from one single Root, which will so cover the Ground with their branching Tops, that the Wets and Dews will easily make a Lodgment, and the Roots likewise be so well secured from the Damage of Droughts, that, if no Rain happens for two or three Months together in the hottest Seasons, there will be Moisture here enough to carry forward the Growth of the Crop in Clays, Loams, and even in Chalks, Gravels, or Sands ; besides which, there is this good Property belonging to this Process, that the Barley at Harvest is generally all of one equal Ripeness, which renders it the compleatest Sort, for making true Malt: By all which Management, if your Ground was in a fine Tilth, dry, and well dressed with good Manure, when the Seed was sown, you need not doubt of having seven Quarters off an Acre.

The Sort of Barley to be sown in this Month. By some, Barley is sown the Beginning of this Month, oftener out of Necessity than Choice : As when the Farmer, by Multiplicity of Business, can't get his Land into a fine Tilth Time enough, or that he has not eat his Turneps off before now, or is retarded through the Inclemency of Weather. In all which Cases, the Rathripe, or *Fulham*, Barley is now the properest to sow, either in Vale or *Chil-*

turn Lands, because it grows quicker than any other Sort; for, though it is sown late, it is early ripe, and will prove the best of Barley for Malting, after being once sown in Loams or stiff Lands, which gives it a much larger Body than the sandy Ground it came from: So likewise in Chalks, Gravels, and Sands, in case you should happen to be behind-hand in sowing your Barley, which more particularly ought to be done, in such hot dry Soils, sooner than in this Month, you ought by no Means to neglect steeping the Seed, in this my excellent nitrous Liquor; because, at this Time of the Year, the Droughts are commonly more powerful, and will sooner burn up the green Barley in such dry Soils, if sown in the naked common Way.

The Opinion of a certain Virtuoso, concerning steeped Barley. "This I take, says he, to exceed the dry Sort, in making stronger Malt: for as Nitre is so essential to Vegetation, that it is its fundamental Principle, and the Grain by being there- with fully impregnated and saturated, when it enters the Ground, immediately joins in Contact with that in the Earth and Air, which causes it to shoot into many *extra* Roots and Stalks, which serve (as a Reservoir) to lodge and retain the nitrous Salts, till, the Corn increasing in Growth, they are, by the alternate Influence of the Dews and solar Heat, so rarefied and exalted, as to insinuate themselves into the vegetative Juices; and as the hot Season advances, these Salts become more and more fixed in the Grain, by the Exhalation of the phlegmatic Part of the Sap, which thus ripens the Corn, and then leaves Plenty of a large full-bodied Grain, distended and loaded with the aforesaid Matter; which, consequently, must yield a greater Spirit (when malted) to the Liquor brewed therefrom."

The

The
Acco
Seed
Soil,
to th
fow,
Acre
very
Land
as w
the V
apt
the C
of M
Bulh
Quan
Beca
not a
thick
Crop
with
Se
four
the
Loss
Eart
he a
On
the
in fa
in fu
com
be t
Huf
more
Grain
as t
fast

The Quantity of Barley Seed to be sown. On this Account, I shall observe, that the Quantity of Seed ought to be proportioned to the Nature of the Soil, Tith, and the Season of the Year. *First*, as to the Soil: On stiff Loams and Clays, some will sow, in the common Way, four Bushels on one Acre, because, on this surly, cold Glebe, the Seed is very apt to bury, chill, and die; and therefore such Land should be assisted with good warm Manure, as will enable the Barley to grow thick, and kill the Weeds, which, in such four Ground, are very apt to get rampant, and destroy the Corn. On the Contrary, in many of the light, sandy Grounds of *Norfolk* and *Suffolk*, they sow but one or two Bushels on an Acre, and, if they increase the Quantity of Seed, it is as the Land is heavier: Because, as they say, their light, poor Ground is not able to carry more; for, if they were to sow it thicker, such Land would return an hopper-eared Crop at Harvest, or, in plainer *English*, a little Ear, with a few Kernels.

Secondly, If a stubborn Soil happens to lie in a four Tith, as it is very apt to do, there must be the more Seed sown, to allow for a considerable Loss, by the Cover that the clotty Part of the Earth will cause, and so deceive the Farmer, if he allows not enough to prevent this Misfortune. On the Contrary, when Land is in a fine Tith, the less Seed will do; and this is one Reason why in sandy Grounds they sow so little Seed; for that, in such pulverised Tiths, hardly one Kernel misses coming up. *Thirdly*, If you sow late, there must be the more Seed sown, for it is a standing Rule in Husbandry, that, the later you sow any Corn, the more Seed should be allowed; because then the Grain will never gather, branch, nor kern so well as the more forward sown, as being drawn up so fast by the powerful Attraction of the Sun, that

it will run apace into Stalk, and less into Corn; and because the Fowls, in late Seasons, live mostly on the Grain sowed then, as having little elsewhere for their Subsistence; and here they have sometimes a long Opportunity to scratch with their Feet, and dig up with their Beaks, the Barley Corns, before their Blade is seen above Ground, when a dry Summer directly succeeds the new sown Grain, to the Destruction perhaps of Half the late sown Crop; from whence I take the Opportunity to urge the Necessity there is of making Use of my invaluable Method of steeping the Barley Seed, which surely prevents the fatal Consequence of sowing late, by causing it to run into Branch in the driest Seasons, and thence into many and large Ears of Corn: For the obtaining of which, let this be always observed, that wherever four Bushels of Barley Seed was used to be sown, in the common Way, there must be but three Bushels sown of the steeped Seed; and so in Proportion for any Ground whatsoever, that there may be Room enough allowed for each Kernel, to make its many and strong Branches or Stalks.

To reduce a rough Tilth, and make it fine presently for Barley. Now in Case your Land lies rough and clotty, the spiky Roll I mentioned in last Month (*Page 17*) may be of Service to go before the Harrows for reducing at once the surly Glebe into a fine Condition; but where this new invented excellent Machine is wanting, then use the common Wooden Roll, and your Harrows directly after that, and sow your Barley; but never roll it as soon as sown, as some injudicious Men have done, and so bury great Part of their Barley Seed, but roll it some Time after, when it is about Half a Handful high; as I have more particularly treated of in my last Month: And what great Importance such a spiky Roll is of, for suddenly

reducing

reduc
that
much
ready
So
we p
Steps
which
and a
the S
rough
Dist
crossi
by it
other
twice
done
Barley
a dou
our co
make
will b
which
come
so go
when
the M
makes
Thro
and w
the fa
by wh
Meth
dry G
are be
they l
Sow
four S

reducing all stiff, rough Ground in a dry-Summer, that Farmer must consequently experience, very much to his Profit, who is furnished with such a ready Conveniency.

Sowing Barley Seed in Chiltun Lands. For this, we plow our Ground into broad Lands of nine Steps broad each, by some called *round Work*, by which a Water-Thorough lies on each Side of it, and a small Ridge or Rising in the Middle: Here the Seedsman goes about a Yard off the Thorough, and sows a Cast, then returns the same Distance of the Ridge, and sows another Cast, crossing the same Ground with his Throw, whereby it is twice sown over, and thus again, on the other Side; by which Means the Seedsman goes twice up and down a broad Land, before he has done sowing it; but the new Way of sowing Barley in dry Loams or Gravels, &c. is to do it in a double, broad Land: That is to say, instead of our common Lands of nine Steps broad each, we make them eighteen Steps broad, and then there will be but Half the henting Thoroughts in the Field, which saves Time and Labour, and the Corn will come evener and better; because the Grain is seldom so good in the Thoroughts, as elsewhere: Here, when the Seedsman begins to sow, he proceeds in the Middle of each Land, and at every Step he makes a Throw on Half the Breadth; thus at two Throws he sows the Breadth of a whole Land; and when, at the End, he returns and sows it in the same Manner back again, in an opposite Way, by which he sows the Land twice over. This Method is allowed to be the best of all others in dry Grounds, but, in wet Soils, the narrow Lands are best, because, the more Thoroughts, the drier they lie,

Sowing Barley in Vale Lands. These admit of four Sorts of Shapes, according to their Nature and

and Situation. *First*, In the Vale of *Aylesbury*, they always lie in one Posture of Ridge and Thorough, and are sowed at twice; the first Cast of Barley Seed is plowed in, and then immediately another is sown and harrowed in, to make it all come even. *Secondly*, In their low Grounds about *Rickmansworth*, they make their Lands eight Bouts wide, or four Steps and a Half broad for sowing Barley and laying it dry. *Thirdly*, In some Parts of *Middlesex*, they sow their Barley in four Bout-Lands, for the same Purpose. *Fourthly*, In some of the Eastern Parts of *Hertfordshire*, they plow their Ground into three and two Bout-Lands, to keep the Barley from being drowned, which they harrow so even, as gives the Scitheman Liberty to mow down the Corn almost as well as in level Grounds.

A new Way of increasing Crops of Barley by sowing it in Drills. This Method is lately invented for destroying the several destructive Weeds, that used to spoil many Acres of Barley; particularly, that called *Bodle* or *Gould*, which commonly, in sandy and other light Grounds, comes up in great and tall Branches, with their yellow Heads, notwithstanding the Earth before Sowing was ever so finely plowed, and which keeps Company with the Barley to the last, so thick as to defy the Weed-Hook or Hand for keeping it down, and is so common a Weed, that few sandy Fields are free from it. It is therefore, that they very judiciously, of late, sow their Barley in Drills or Furrows, in such Sands, Loams, Chalks, &c. as are clear of Stones, and will easily admit of this Operation by a most excellent three Wheel-Plough, which lets the Barley out of a Hopper, in a very regular Manner, into Drills, which it makes about one or two Feet asunder; and which by a small Alteration afterwards is to be drawn by one Horse, and

made

made to serve as a Break, or Hough-Plough, for killing Weeds between the Rows of Corn, and moulding them up to a prodigious Advantage: Which Plough, as well as another just invented for doing the same Work, in low, wettish Grounds, I shall particularly describe in my next monthly Book, and there recommend their most serviceable Uses.

To improve Crops of Barley by the Fold. If, as soon as your Barley is sown, you fold your Sheep on the same, it will cause it to branch, and grow faster. But as this Husbandry may meet with its Inconveniences, as well as be attended with Success, I shall here relate the two following Cases, which may be worthy your Observation, viz. A Farmer by me having had but a poor Crop of Turneps on a loamy Soil, that before had been but half plowed: When the Turneps were eaten off, he gave the Ground one Plowing, and harrowed in his Barley, on which he directly folded: But he had no Barley in many Places, and but a small Crop in the better Part. The Reason was, that, the Land being sour and clung, the Barley Seed had not room to be buried deep enough by the Harrows, so that the Feet of the Sheep trod it out of the Ground, instead of treading it in; and this Misfortune was the greater for the dry Weather that followed after; because, by this, the Seed was the easier displaced by the Tread of the Sheep; whereas, had it been a wettish Time, it had not been so much raised out of the Earth. The other Case was thus: At the same Time I had a Field of Turneps, that was a good Crop, which, as soon as eaten off, I gave it only one Plowing, and harrowed in my steeped Barley Seed, on a loamy Soil in *April*, and immediately folded on the same, till the remaining Part grew above my Shoes in this Month; and it proved an excellent Crop. The Reason was, that my Ground was
made

made a fine Tilth by several Plowings before the Turnep Seed was sown, which by houghing, and the great Cover of the Leaves, the Earth was kept in such a hollow Condition, that the Feet of the Sheep helped to sink the Seed lower, instead of treading it out of the Ground. Therefore, none ought to fold Sheep on their Barley, unless the Ground is in a good Tilth, and lies loose; and then you will also avoid the common Danger of spoiling the Barley, by the Feet of the Sheep, while it is chipping or sprouting, because, when the Ground lies thus hollow, there is a sufficient Quantity of Mould to cover and guard it from such Damage. Likewise observe, that in Gravels, and other binding Grounds, if it is wet Weather when the Fold is over the Barley, the Grain will be so fastened in by the mortarising Nature of such Soil, and the Feet of the Sheep, that a great deal will never come out; however, by taking Care not to fold in a rainy Time, you may, on such Ground, carry on your Folding, till the Barley is five or six Inches high, and near spindling, with great Success: But, for further enriching Barley Land, some, that fat their Sheep on Turneps, will every Day dig up those which have been scooped by them, and feed their Store-Sheep with them every Night in the Fold, which these Sort will greedily eat after having been kept all Day on a short Bite of Grass; and thus such Ground will be three Times dressed, once by the fat Sheep, next by the Store-Sheep, and lastly, by the same after the Barley is sowed; and indeed this is the best of Dressing, not only for making the Corn stand fast against Storms of Wind and Rain, but also for causing a great Crop, and preventing its being damaged by Worms.

Barley fed by some, and by others made Hay of. On the first of May, 1734. A Crop of Barley of my Neighbour's

Neighbour's was so rank, that he fed it down with his Sheep (it being sowed the latter End of *February*) and it proved a very great Benefit to it, for it shot so strong afterwards, that it gathered into many Stalks from each Root: Yet is such Management to be done with great Precaution, for, though it may help some, it may spoil others; as for Example, if such a Crop of Barley was thin, the Ground weedy, and the Land not in good Heart, the Weeds would probably have gotten the better of the Corn, and spoiled it; but where the Ground is rich, and the Land clean, dry, and warm, it may be ventured on, in this Manner, with a good Prospect of Success. Sometimes Barley, in wet, warm Seasons, is so rank in this Month, that it is laid flattish, and then some will top it with a Scythe; others will mow it almost close, and make Hay of it; but then it must be done before it spindles, otherwise you may endanger the whole Crop.

Barley eaten by Worms. — The Winter 1735 being mild, the Worms lay in the Spring-time near the Surface, and destroyed a great deal of Barley, by gnawing it just above the Root. My next Neighbour sowed a Field with Barley early in *March*, that by the Middle of *April* was most of it devoured by Worms, and spoiled by them, and the Chill of a cold, wet Time, which brought him under the Loss of Labour, Time, and Seed, and obliged him to plant the same Ground with Garden-Beans directly: Now this Damage was brought on the more, by his dressing the Land with Dung, which, being of a warm hollow Nature, presently invited these Insects towards the Surface for feeding on it; and then, meeting with the new sprouting Blade of the Barley, it served them as a delicious Food, which they greedily eat after a long Winter's Confinement in their deep Cells; and the

E more,

more, because there was no other Vegetable, at this Time of the Year, in the ploughed Ground for their Subsistence, as it evidently appeared in those Places where the Dung lay ; for here the Corn was eaten, when at the same time that escaped, which was not dunged ; and therefore Sheep-folding, Soot, Lime, Horn-shavings, oily or greasy Rags, or such as had been sprinkled with Urine several times, or Tobacco-Sand, or Peat-Ashes, and more particularly the Nitre, &c. with which the Barley Seed is loaded, are good Preservatives, and much safer against the Damage of Worms and Slugs, than common Dung. But this was not altogether occasioned by the Dung, for there was another Cause no less fatal to the Destruction of the Barley ; and that was a Lay of Clover, that this Field had been under two Years before, which naturally increased the Breed of Worms, for all Restings of Ground are as so many Friends to this Insect ; especially in wet, flat, loamy Land, as this Field was: An Instance of this was plain to my Observation, in some sandy Mud, that had lain three Years in the Side of a Hole, where Road-Sullidge run into by the Wash of Rains, which I had emptied every Year, but, a small Part of it escaping the Shovel, it became full of red Worms, the rest being intirely free ; therefore, many are so timorous on this Account, that they won't sow Wheat or Barley in such Ground, but a Crop of Oats first, which is less valuable, or Horse-beans, that is less hazardous. As to Wheat, I have happily discovered a new Secret, for soaking it in a Liquor, that will effectually keep off all Damage by Worms, and at the same time prevent any Loss by Smut, &c. and which I intend to publish in the Month of *September*.

First, *St. Foyne sowed with Barley*.—If you could not sow this Seed with Barley in *March* or *April*, it may be done the very Beginning of this Month ;

and

and it may prove a good Crop, if Showers succeed in due time; and for the better securing its Growth, and making it come forward, you may sow fifteen Bushels of Coal-Soot over an Acre, as soon as the Barley and St. Foyne Seed are sown, or you may clap your Fold upon it: But, of the Improvement of Barley, more in my next Monthly Book.

Common Wheat, its Condition and Management in May.—If Wheat looks yellowish in this Month, and continues so throughout the whole, it will never rightly recover that Summer; because then it is on its Shoot or Earing, and past Hopes: But if it is sick in the Beginning, and recovers before the End, it may chance to be a good Crop; for all Wheat should may, or look yellowish in *April*, and be of a black Green in *May*: Or take it this Way; if Wheat holds its Colour throughout *April*, and this Month, there is no great Danger of a good Crop. If it thrives in *March*, it generally mays in *April*; if it thrives in *April*, it commonly mays in *May*. When it mays in *April*, it is right, but wrong if in *May*; for then it should, towards the latter End of the Month, thrive and shoot into Ear, instead of maying or yellowing; which is often caused for Want of the Ground's being in Heart, to enable the Wheat to withstand the cold and chilly Seasons. But, to be more particular, your forward sown Wheat often grows so luxuriant, in the Beginning of Winter, as to spend itself too soon, and especially, if followed with a mild Spring, which causes it to grow so rank, as to want Strength, in this Month, to carry it on, and then, in course, it must have a sickening Time to check it, in order to make it shoot with the greater Vigour afterwards. Now there are two Extrems of Weather, that sometimes happen in this Month, which prove fatal to Crops of Wheat: One is

Frosts, as it happened in *May*, 1734, when Hail-Stones fell successively for three Days, which being of a poisonous, cold Nature, and very heavy withal, beat down and hurt the Spindle of the Wheat, and Stalks of Pease, making the latter red-headed, and causing many to die : This was a Season so severe, that on the eighteenth Day the Icicles were seen to hang at the Eves of Houses ; but the poorer Sort of Wheat suffered most. On the contrary, at another Time, about the Middle of this Month, the Season having been mild and rainy some Time before, the well-dressed Wheat and Barley suffered much, by their luxuriant Growth ; infomuch that a great deal fell, before it was shot into Ear, which proved of very ill Consequence to the Farmer, because vast Quantities never did rise again, and did not half kern, especially in the Vale Grounds, which are the richest Soils ; and this Misfortune proved the greater, where the Wheat was youngest and weakest in Stalk ; for, when this happens to Wheat at an older Growth, it is often strong enough to get up and recover. When Wheat is rank too soon, it has tempted many to mow or feed it, in order to bring it under a more regular Growth : But as this Management is better or worse, according to the Nature of the Grain, Land, and Weather, and that there is a great deal to be said about it, I shall defer it for a more proper Month. But, before I leave this Subject, I must observe, that when Wheat is sown, at a right Time, in a proper Soil, and the Seasons of the Year prove favourable, there are many Acres that never may or sicken at all, yet hold their Growth and Colour from the first to the last, in right Order ; then such Wheat is in its highest Perfection. About the Middle of this Month, 1736, the Wheat in the *Chilturn*, high Ground, especially, looked short, yellowish, and sick, by

man

means of a very long cold, dry Season, which ruined many Crops that were not well dressed, because the Ground had not Strength enough to make it run and rally again, as that in Heart did, and recovered. There was a Field of latter sown Wheat, which in the Beginning of *March* looked at some Distance, as if nothing grew in it; yet the Ground being clear of Weeds, and in tolerable Strength, and the Wheat not having spent itself in Winter too much, in the Spring it gathered to that Degree, that some of it had fourteen Ears from one Root, as it grew in a loamy, gravelly Clay, and proved an excellent Crop at Harvest.

Buck, Brank, or French Wheat, its Nature and Uses—It is the Opinion of some, that it does most good in Clays and clung Grounds to hollow them; others say, that it is best used in dry, binding Gravels or Sands, to keep the one loose, and the other moist; but, in some of the sandy Lands about *Godalmin*, they dare not sow it, lest it make the Earth too light for common Wheat; yet in heavy Sands, sandy Loams, Gravels, and such Sort of light Grounds, it is certainly best sown, either to plow in as a Dressing, or for Seed. In Chalks it is improper, because it loosens them too much. In stiff and wet Lands, it is apt to rot both in Root and Ear, as being itself a very succulent Plant, and of a tender, cold Nature, being easily hurt by some Winds, Lightning, and Frosts; and therefore warm light Soils suit it best, and, in all, it is a very great Killer of Weeds, where it grows thick, as it commonly does in Tilths, though you sow but one Bushel on an Acre, and is found by many to answer that great End, which all Farmers endeavour after; namely, to reap a great Advantage for a little Charge. I am the first, that have sown it in our Parts for a Dressing, though it has been sown in *Norfolk, Suffolk, Surry, Kent, and Berksbire*; many

many Years, and is now more and more propagated. As I live twenty-seven Miles from *London*, it is a great Expence to have Manures from thence, for sometimes Soot is a Shilling a Bushel, so that 25 s. is the Charge of dressing a single Acre well, when Half a Crown will do in *French* Wheat, and yet this will kill Weeds, when Soot will nourish some; the Wheat-dressing will last three Years, when the Soot will last but two; the one is also the more certain than the other, for, in dry Seasons, the Soot, by its sulphureous Quality, will burn up a Crop of Wheat or Barley to a great Degree, when the *French* Wheat will remain a sure and certain Promoter of Vegetation by its moist, hollow, fertilising Nature: Again, Soot, when it is laid, to the Quantity of twenty-five Bushels on an Acre, forces so vehemently either Grass or Corn, that, after two Years, it leaves a Poverty behind it, which this is so far from doing, that it is almost a Dressing the third Year, provided it be a full Crop at first, and plowed in at full Bloom, when the Stalks are fullest of Sap. This Grain is one of the greatest Drawers of the Earth, and has returned four or five Quarters of Seed from one Acre, which is excellent for feeding Hogs, and Poultry. In Blooming-time, when this is to be plowed in, it is very serviceable for subsisting Cattle in a little while, who will tread it down, and make it the fitter for this Purpose. You, that dress your Land by Sheep, may fold them in another Ground, while this is provided for, and that without any Risque of your Cattle's breaking out into your Neighbour's Fields, for here is Meat in Plenty. So, when your Teams are all busy, in some Ground there needs but one Plowing to harrow your common Wheat in on this *French* Wheat: It may be sown in *July* or *August*, for Cattle to graze on it in *November*, or sooner. In

Shropshire

Shropshire
make
is two
Sort of
and w
and eat
is calle
of this
a great
The
gravell
it, and
the W
I let l
rowed
with t
the sev
again,
Seed c
rowed
I imm
harrow
I hale
it be
it ha
sown.
for a
to fow
may h
which
mix i
where
may
some
with
diately
second
in th

Shropshire they grind *French* Wheat very fine, and make thin Cakes on a Back or Bake-stone, which is two or three Feet diameter, on which they put a Sort of Batter made of this Flour, Milk, and Yeast; and when it is turned and done enough, they butter and eat it, drinking Butter-milk with it; this Cake is called *Fannock* or *Crumpet*, and is what old *Parr* of this Country eat all his Life: It feeds People to a great Strength and Stature.

The Culture of French Wheat. My Field was a gravelly Loam, that had a Crop of Oats last on it, and, on the tenth of *December*, I plowed it with the Wheel-Fallow-Plough into Broad-lands, which I let lie till the Beginning of *March*, when I harrowed it plain, and then directly hacked it across with the same Plough. In this Posture it lay till the seventh of this Month, and then I plowed it again, and sowed rather above Half a Bushel of Seed on the rough Ground broad-cast, and harrowed it in once in a Place: When this was done, I immediately sowed my other Half Bushel, and harrowed across twice in a Place; by which Means I haled or covered it from the Fowls, and secured it better from the scorching Heats, than if it had been harrowed first before any was sown. If you sow this Seed, to plow its Crop in, for a Dressing to common Wheat, then you ought to sow it the Beginning of this Month, that you may have Time enough to plow it twice or thrice, which they do in some light Grounds, in Order to mix it well after it has first lain and rotted; but where it is to have only one Plowing in, then it may be sown the latter End of this Month. In some Parts, in their sandy Land, they plow it in with a Wheel-Plough shallow, and then immediately a Foot-Plough follows, and throws up a second Mould or Sand upon that, and then harrow in their common Wheat, to give it a deeper
Bottom.

Bottom. Some, to have a Crop of this *French* Wheat, will make a Fallow and Dung for it, as for other Wheat. If it is sown for Seed, it may be done the latter End of this, or in all the Month of *June*; if Ground lies low and wet, it may be sown in two, three, or four Bout-lands; or it may be sown with the three Wheel Drill-Plough, and horse-houghed at several Times, and thus it will make it grow to a great Height, and produce Abundance of large Seed, if sown at

Feet asunder in Drills, which this excellent Plough makes, and at the same Time drops its Seed in the same out of a Hopper, in a most regular Manner, which afterwards must be covered by the Harrow: This Operation, though it is done for getting a Crop of Seed, yet, by this drilling and houghing Method, the Ground is finely prepared for a Crop of common Wheat to follow immediately this *French* Wheat, by plowing and sowing the same Ground cross-ways in four-thorough Stitches, or in Drills made in the last Intervals, and that without any Manner of dunging or other dressing; for the Earth being first made fine, and houghed up to the Rows of such Wheat, exceeds all Yard-Dungs whatsoever. As to the cutting, getting out the Seed, and housing this *French* Wheat, I intend to give an ample Account of it in the Month of *September*.

The Culture of Woold or Weld. This Month is a proper Time for sowing Weld among *French* Wheat: It is a Vegetable that is carefully cultivated by many Farmers of late in their light Soils, for these best agree with it, and though it grows well in dry Loams, Gravels, and sandy Loams, yet of late it has been found to flourish on chalky Bottoms, if the Seasons be kind; That is to say, if the Summer it is sowed in be dry, and the next a wet one: But it best of all agrees with dry, fresh Ground,

Ground, I mean where artificial Grass grew two Years before, and has had one Crop of Beans or Pease first off the same Land. Now the Reason why they sow Weld and *French* Wheat together is, because there is the longer Time to get the Earth into a fine Tilth, for both these Seeds require that in particular; it is on this Account therefore they sow Weld and *French* Wheat together the latter End of this Month. As soon as a Bushel of the latter is sown broad Cast, and harrowed in, they sow three Quarts of Weld-seed on one Acre, and harrow it in once in a Place, or twice at most, with light Harrows, for this is a small Seed, and will easily bury. The first Year they mow the Buck-Wheat off, and the next Year, in *June*, they pull up the Weld, and manage it as I shall shew in the next Month; and thus they will grow well together, because the Buck-Wheat kills the Weeds, and keeps the Weld from the Damage of Droughts. But this, like Turneps, is sometimes spoiled by the Slug and Fly in its Infancy; to prevent which, I intend likewise to make known a Remedy in *June* and *July*, that will effectually do. The Year 1738, a Load of these Stalks with their Roots was worth ten Guineas to the Dier for the yellow Colour. Weld will also grow among Oats, or Barley, sown in *March* and *April*, but not so well as with the *French* Wheat. Its of a hardy Nature, for it will sometimes grow on a coarse Tilth: I mean where Oats are sown on only one Plowing, this if sown with them will very likely grow if it is fine Weather at that Time; but then the Weeds should be carefully taken away, for as the Weld has but a small Root, its much endangered by them.

Cole or Rapes.— These that were sown in *July* or *August*, or *September*, may be fed 'till the Beginning of this Month, with Sheep, Cows, or Bullocks, and the same Land fallowed directly for Turneps

or Wheat. These afford the Farmer a vast Opportunity of Profit, for this, like Rye, may be fed in the Spring, when Grass and green Corn cannot; but the Cole or Rape exceeds the Rye, in that it may be fed earlier in Snows and near as late, for these will suffer themselves to be eat down two or three Times, and quickly recover again, which cannot so well be said of Rye. The Roots of these, being of the Cabbage Kind, draw very much Nourishment from a rich Ground, that forces them on, and gives them a new Head in a little Time, which again returns the Dung and Stale of the Sheep, to the great Enrichment of the Land and Profit of the Owner, who by this Means may keep his Money at Home, which otherwise must be expended in Dung, Soot, Ashes, Horn-shavings, Rags, and other chargeable distant Dressings, that are not so good and natural to the Land as this of Sheep. But as the Months of *July, August, September* are the properest Times in the whole Year for sowing Cole Seed; I shall enlarge no further on this Head at present, but defer it till then, at which Time I shall oblige the World with an effectual Method to secure it against the Fly and Slug, which are mortal Enemies to this valuable Vegetable while in its second Leaf.

Rye. — Your Rye that was sown in *August* or *September* is now eaten off, and your Ground in some Measure dressed with the Dung and Stale of Sheep or Cows, which makes such Land be the readier for another Crop. Some therefore will plow up and fold the same with Sheep, in order to get a Crop of Turneps or Wheat.

Turneps. — You that design to sow your Field with Turneps in this Month, I will suppose you do it, either to eat off forward with Sheep, in order to sow the same Ground with Wheat; or else to pull and sell them in *August* or *September*, other-
wife

wife
 becau
 befor
 unles
Octob
 order
 and
 and p
 folder
 of T
 feedin
 a goo
 eight
 pition
 of Se
 witho
 be as
 Way
 harro
 any
 feed
 a Wi
 viceal
 and t
 them
 nep S
 Drill-
 Adva
 becau
 of ho
 easily
 be ea
 you r
Nave
 &c.

wife its too soon to sow them for a Winter Crop, because they will grow hollow, hard, and stringy before the proper Time of eating them with Sheep, unless you intend to eat the large red Turnep in *October* and *November* with horned Beasts. In order therefore to have the Turneps in full Plenty, and to make them grow large and quick: First and principally, let your Ground be well dunged, folded, or limed. In the next Place, the right Sort of Turnep should be resolved on. If for an early feeding or pulling, the *Dutch* white flat Turnep is a good sweet Sort, that will be ready to draw in eight or ten Weeks Time, if the Weather is propitious; in order to which, sow two or three Pounds of Seed on an Acre, and harrow it once in a Place, without any Pole on the Harrows, that they may be as light as possible, and it will prove a better Way than to harrow the Seed in with a Bush-harrow or Hurdle. But with us there are seldom any Turneps sown in this Month, because, as we feed Sheep with them, they will come too soon for a Winter Crop, and then they won't be near so serviceable to the Beast, as the late sown more young and tender Sort; for which Reason we seldom sow them before the latter End of next Month. Turnep Seed may also be sown out of the three Wheel Drill-Plough in Drills, which it makes to a Advantage at two or three Foot Distance each Drill, because here they may be allowed a large Assistance of houghed Earth to their Sides, the Weeds more easily destroyed, and the Turneps better pulled, to be eaten clean up in another Place. In this Month you may also sow the long *French* Turnep, called *Naveus*, that are much of late in use for Soops, &c.

C H A P. III.

Of Weeds and their Cure.

ALL Authors that have wrote on Weeds (as far as I can learn) have left the particular Destruction of many of the worst of them to be found out. And therefore, I shall here endeavour to make known the best Ways of doing it in the common Husbandry of sowing Grain broad Cast, or by straining it out of the Hand, which is absolutely necessary; because in the large Vale of *Aylesbury*, and some others, as also in many Sorts of stony, hilly, clayey, and hurlucky Grounds, neither Drilling nor any other Way can be used. And although the Weed Hook and Hand are the most common Instruments for weeding Corn, that is thus sowed promiscuously, yet both in this old Way of Farming, as well as in the new Drill Way, the Plough and some other new Machines are certainly the best weeding Tools of all others, as I shall hereafter shew.

Of two new invented Weeding-Ploughs, the Sheim Break, Niget, &c.—It was in the Year 1737, about eighty-five Miles from *London*, that I first saw the three Wheel-Plough, which for its great Uses in multiplying Crops of Grain, Turneps, and artificial Grasses, and killing of Weeds, deserves Admiration, and to be made use of wherever the Ground will admit of it. The second is also a very ingenious Invention, to supply a Foot Plough as the other does the Wheel Sort: They are both made to drill Corn, Turnep, and Grass Seeds out of a Hopper; and with a little Alteration, will very expeditiously, and in the cheapest, surest Manner, destroy all Sorts of Weeds in the Intervals, besides keeping the Ground in a most fine Tilth, to sow
a suc-

a succeeding Crop; insomuch, that by the Help of these, Land may be sown, and Crops had every Year, without any Danger of breeding the wild Oat, or any other Weed, which would certainly happen, if it was constantly sown in the common Way without fallowing. The Sheim Break, or Niget, have also their Share in extirpating Weeds, as well as the several Sorts of Houghs, which are all of so late an Invention, that but few Farmers are now in Possession of them: But their great Importance will certainly, speedily bring them into Use more and more, because they may be so managed, as to save the Expence of all Manner of Manures or Dressings, and perform many other valuable Matters, that are too tedious here to enumerate; but I intend to be more particular in the Account of them in next Month.

Curlock or Charlock.— This is one of the commonest Weeds that grow among Corn, Turneps, &c. in Fields, and of so hardy a Nature, that where its got to a plentiful Head, its very difficult to destroy it, because its Seed has so much Oil in it, as enables it to withstand one Winter and Summer Fallowings. In wet warm Seasons it is, like most others, most predominant; so that about the Middle of this Month, it has provoked some to employ many Hands to pull both the yellow and white Sort up by their Roots; you may give it to Sheep, who will greedily eat their Leaves and flowery Heads. The yellow Sort grows in most Grounds, but the white, which is the most pernicious, chiefly infests the lighter Lands, and is not near so common as the other. There has grown so much of the yellow Sort in many Fields of Oats, which have so out-shot the Corn, as to oblige the Owner to get their feedy Tops mowed off, to prevent an After Damage from their Seed, and to give the Sun room to nourish the Oats the better. Others have

have used the five Foot long Weed-hook, and six Feet long Pea-hook to strike off their Heads, it being an endless Piece of Work to pull them with their Hands, where these Weeds are vastly thick. This Seed, which very nearly resembles the Turnep Sort, and is like it both in Leaf and Flower, is undoubtedly propagated with Turnep Seed, that it often grows amongst, and therefore Farmers should be truly nice in making Use of clean Seed, for a Turnep Crop. Curlock seldom grows among Wheat, but much among Barley, Oats, Pease; &c. where it does a great deal of harm, by its branching and choaking the Corn, and drawing a considerable Nourishment from the same Earth, that should be expended in forwarding the Growth of a large Crop: It mostly flourishes in Tilths and well dressed Grounds, but does not affect stiff and watery Soils: It is best killed, by making a Summer-Fallow of the Land, and by sowing the same, the next Summer after, with a Crop of Turneps.

Wild Poppey, by some called red Weed.— It chiefly grows in white and gravelly Grounds, but is often seen in Loams, and some other Earths. Its a very succulent Weed, that draws the Ground much, and robs it of those nutritious Salts which should fertilize the Roots of Corn: It runs up in large green Bunches, and therefore is best drawn by the Hand in this Month, for the Weed-hook is not proper here: Its Roots, Stalks and Leaves make an excellent Hay for tame Rabbits, as being both of a healthy and fatening Nature: Their Flowers or red Heads are also serviceable in making a salubrious Syrrup: Its mostly occasioned by too fine a Tilth, and when the Corn is sown in a dry Season, which makes heavy Plowing, and a moist Season its best Prevention. But a certain Farmer took a Method that I never knew any other do, and that was, because he thought it too tedious a
Work

Work
Hogs
Month
those
The
the Gro
and Big
a great
where
done,
Bits o
where,
shrivel
the Ea
are go
service
pers.
afford
will d
they f
the R
them,
low-S
them
a Fie
Grass
weede
Grou
they
ving
with
anoth
side t
very
Fer
two l
Grass
and

Work to pull it up by the Hand, he turned his Hogs into his Wheat the very Beginning of this Month, and they preferr'd the poppy Stalks to those of the Wheat.

The red and white Dock.— This Weed runs into the Ground like a Radish ; as to the Shape, Depth and Bigness, it has a bunchy tall Head, that contains a great deal of Seed, and does much Mischief, where they are suffered to encrease, which is easily done, not only by their Seed, but by letting any Bits of their Roots lie on the plowed Ground ; where, though they have lain some Months in a shrivelled Condition, yet if they are mixed with the Earth, they will grow again. Some say they are good for Nothing ; others, that they are very serviceable in Diet-Drinks for cutaneous Distempers. In this Month their large Leaves and Stalks afford a good Handle to pull them up by. Some will draw them from among their Corn, but then they sometimes do a great deal of Harm ; because the Roots of the Grain are apt to come up with them, therefore others will do this Work in the Fallow-Seasons, by following the Plough, and digging them up in the Thoroughs it makes : Others, when a Field is under Clover, or any of the artificial Grasses, will haul them out ; but whenever they are weeded by pulling, it must be done when the Ground is pretty wet and loose. About *Enfield*, they use a clever Instrument for this Purpose, having a wooden Handle, let into a Socket of Iron, with two Prongs of the same, fixed very near one another, and a small Foot-Iron, jetting out on one side their Top, which being forced into the Ground, very dexterously eradicates a Dock 'at once.

Fern and Russhes.— These are sometimes a Foot or two high in this Month, and hurt both Corn and Grass. To kill the Fern, one mowed it in *May*, and twice the same Summer afterwards ; another whipt

whipt and beat it ; others, have plowed up a Grass Baulk, carried away its Surface, and plowed the same Ground again for Corn : But these Practices only check'd it. In a certain Park this Weed was killed by plowing the Ground several Times one Winter and Summer, till the Earth was got fine ; and then in *August*, the Owner sowed the same with Rye, which fed the Deer the next Year ; afterwards by plowing and sowing artificial Grasses, and roling the Ground at Times, he destroyed the Fern. But as Fern grows among Trees and other Places improper for using the Plough, there was a Role invented, of a very large Size, to kill the Fern, and it had the desired Effect : This Role was made with narrow Oaken Planks, two Inches and a Half thick, fastened by a wooden Pin, on three Wheels, that have only four Spokes to each Wheel. The Diameter of this hollow Role is five Feet ten Inches, and its Length above seven Feet, through the Middle of this an Iron Spindle or Axle-tree is fastened, to which the wooden Sharps are fixed to draw it by with two, three, five, eight, or ten Horses, according to the Weight you put into it ; for the Inside is made to hold Stones, Gravel or other such ponderous Bodies, to make the greater Pressure ; and though this Weed has been found to run more than eight Feet into the Earth, yet in two Years, the Role has killed it. It will also crush down Mole-banks, Ant-hills, and Casts of Worms, and level Grass-Ground the better for the Scythe. It has been observed not to grow any more the same Year, if it is mowed on *Midsummer* Day. The Rush that mostly infests wet Grounds, is check'd by sowing Coal-Ashes, Lime, Soot, and Peat-Ashes.

Wild Oat.— This Weed is notoriously known to be a most pernicious one, by Reason of the great Difficulty that attends its Extirpation, and like-
wife

wife on Account of its easy Increase, for this will grow amongst most Corn, and scatter its Seed before the Grain is ripe, nor will it yield to any one Year's Plowing of the Ground, because of its several Skins and hardy Nature. On which Account it surpasses most others, as is plain from its growing, in Plenty, on breaking up Meadow Ground that has laid under Grass some Scores of Years; for many Seeds of Weeds will withstand the Culture of the Earth, and the Severity of the Weather, much longer than the Seeds of Corn or Grasses, insomuch that by the Toughness of their Coats, and their sulphureous Nature, they have been proved to lie unhurt in the Ground, more than the Age of Man; which I think is enough to confute the common Opinion, that some Ground naturally breeds Weeds, without their Seeds being before in the same. And why wild Oats grow most in Ground that is constantly sown with Corn, I think may be accounted for, by allowing that such Seeds, if but a few at first, will increase the more by often mixing them with the Plough, and giving the Earth no Opportunity for their Ruin. The best Remedy, I know of, in the common Husbandry, is after a Summer Fallow to plow the Ground several Times for a Crop of Turneps, or to have Turneps twice together: But above all others, the Plowings or Breakings between the Drills of Corn, Turneps, or artificial Grasses will certainly and intirely destroy the Breed of wild Oats in a little Time. Before I conclude this Article, I cannot but observe the Opinion of a certain Person, who believed that those Oats eaten by Horses, and dunged whole, produce a wild Oat, by Reason of the Damage they receive from the Body of the Beast: If this be true, it is not to be wondered at, if they grow in great Plenty, where such Dung is laid: In the Vale among their random sown Horse-
G beans,

beans, the Sheep destroy the wild Oats that Year, by feeding among the Beans, even in Blossom-Time.

Crow or wild Garlick. This sometimes runs up as high as the Wheat, with Heads and Seeds somewhat like Onions, but not so large; it chiefly grows among Wheat and Barley, and not so much among Oats and Pease, at least it is not so much minded in them, as in the other two. It is such an abominable stinking Weed, that when the Wheat is at Market, and this Seed perceived to be mixed but in a small Degree with it, the Buyer commonly calls it the *Devil* of a Weed. One of my Days-men told me, that he and another, as they were weeding of Corn, espied some of the Crow Garlick, which so much resembled young Onions, that his Partner said he would sit down and eat his Bread and Cheese with a few of them; accordingly he cut about ten close to the Ground, but it was not long before they began to swell the Man, and forced him home, as fast as he could go, where happily his Wife gave him a Dose of Physic that she had by her, and saved her Husband. This Weed grows in many Grounds, but chiefly in the stony, clayey Soils, and is best killed by Winter Fallows, frequent Plowings, and Turnep-Crops. The Seed of this Weed clogs the Stones of Mills, so that it is very hard to clear them of its Flour, 'till the next Summer dries it quite up.

Melilot. Is a Weed that grows among Wheat and Barley, but mostly in Pease, Oats, and Beans, and that both in Vale and *Chilturn* Lands, where it comes up much like Lucern Grass, about two Feet high with a yellow Flower, and a black Seed like Trefoil. If its Leaf or Seed is rubbed, it will stink the Hands for three or four Hours, and is so hateful to Horses, that they refuse the Oats it grows with. It is generally found in stony Clays
and

and wettish Grounds ; which if cross cropped, by too often Sowings, will increase this horrid Weed very much. Its Remedy is the same as for Crow Garlick. Both this and the Garlic are such offensive Vegetables, as oblige some Farmers to weed it out, to prevent its Damage by the Cow's Milk in Cheese and Butter, as I have before observed.

Gould. This is the commonest and most pernicious Weed of all others in sandy Lands. This Summer, 1738, being a wet one, the Gould got such a Head among Barley, especially, that there seemed to be as much Weed as Corn in some Fields. Many of their Sands, sandy Loams, light brick Earths, and such Soils are hardly ever without its Roots. It is one of those Weeds that cause a Despair of destroying it, where it has got but a tolerable Possession. I have observed its Growth, in vast Quantities of Ground, where its great high Bunches with golden Heads like a Marygold shew themselves, at a great Distance. There are four Sorts of it that infest Corn Fields, as the white, red, blue, and yellow, but the last is the common Weed. To check then this fatal Destroyer, some lay down the same Ground, with artificial Grass ; others get a Crop of Turneps, as often as they well can on it ; others sow Rye instead of Barley, for this over-tops it. But, to kill it quite, the best Way is to sow the Corn in Drills, and then plow and clean the Intervals, with that and the Break. About July 10, 1738, I saw the blue Sort with many round hard Stalks, three Feet high, among Barley, Oats, and Thetches, in a gravelly Loam.

Horse-Gould. Is a general destructive Weed, and mostly so in Wheat : It comes up in a fine Tilth, and flourishes most by a wet Season, attended with a cold Spring, for then the Weed is apt to get the better of the Corn, as being the more hardy

G 2

Plant :

Plant : It will keep Company with the Wheat till the Harvest, and then is about half the Length of the Grain Stalks ; shedding a great Deal of its flat Burr-Seed in that Time, for this Weed grows so thick, that it is impossible to weed it with the Hand or Hook ; therefore some have attempted to eat it off with the Wheat, by their Sheep, and failed ; for when it is old, as commonly it is when the Time is for doing it, the Beast does not care to eat it, because it is then bitterish : But my next Neighbour turned his Sheep in full early, which eat up both Wheat and Weed ; the Consequence was, that the Earth being a Loam, and a wet, cold Time happening, while it was thus feeding, the Weed recovered, and spoiled most of the Crop of Wheat. This Yellow-headed Weed grows chiefly in stiff Lands and Gravels, both in the Vale and *Chilturn*.

Wild Borrage or Cats-tail. There are two Sorts that bear this Appellation, the blue and green, but the blue is the commonest and worst. This shews itself but once in three Years, and then in the *Lent* Crop of Pease or Oats, mostly in Chalks, Gravels, or Sands, with a large Head, and downright Root ; for it does not affect Tiltth-Earths. Between *Hazlemere* and *Godalmin*, in *Surry*, I saw a large Field of Oats so over-run with this blue Weed, and the red Poppy, about the tenth of *June*, in a sandy Loam, that I could hardly see, at a small Distance, any other but these two fine coloured Weeds, which made a pretty Show to the Traveller, but a woeful one to the Farmer : In the old Husbandry, it is best destroyed by pulling up with the Hand in wet Weather, or by the Fin on the Share, or by following the Plough with Mattocks : It is called Cats-tail in *Hertfordshire* ; in *Surry*, wild Borrage.

Hogweed.

Hogweed.
Weed
draws
and tal
below
Crops
about t
its larg
low, a
a flat
snip, t
No Pl
will it
other
comm
this M
checks
do a g
Corn.
ral M
tocks,
the Fu
off the
laid o
which
but H
Lover
fatten
are gr
Can
Weed
spires
high,
like a
great
Loam
Groun
to dig

Hogweed. This is the worst and commonest Weed that infects our *Chiltun* Fields, because it draws away much Nourishment from the Grain, and takes up a great Deal of Room both above and below the Surface, to the great Damage of all Crops of Corn that grow among it. It roots about two Feet down, and more upwards in Stalk; its large Head is first green, then white, next yellow, and at last brown and ripe in Seed, which is a flat Sort, so much like that of the Garden Parsnip, that it is difficult to distinguish it by Sight. No Plowing nor Fallowing can destroy this, nor will it yield to sowing the Ground with Clover or other Grasses, or with Turnep Seed, and their common Houghing: Our Way is to weed it in this Month or next with the Hook, but this only checks it from feeding, and causes the Weeder to do a great deal of Harm with his Feet among the Corn. To destroy it, it should be dug up by several Men following the Plough with their Mattocks, for their Roots shew themselves very plain in the Furrow, and then their Pieces must be carried off the arable Land, lest they should grow, or be laid on the same for Sheep to feed on directly, which they will greedily do; and not only Sheep, but Horses, Cows, Hogs, and Rabbits, are great Lovers both of their Roots and Stalks, and will fatten on them, if plentifully supplied, whilst they are green.

Cammock. There are two Sorts of this stinking Weed; the one has a Honey-suckle Head, the other spires up with a Sort of grassy Leaf above a Foot high, and smells strongest: It branches and roots like a Honey-suckle, but much more, and is a great Spoiler of Corn: It grows in Patches, in Loams, Clays, Gravels, and in some Sort of white Grounds. Their Cure is chiefly by the Mattock, to dig up their Roots deep, and break the Ground well

well to come at them, carefully carrying away all their fibrous or stringy Parts off the plowed Ground: Their largest Roots are so strong, as sometimes to set six Horses.

Honey-Suckle. I mean the red Sort, which when old, like the Cammock, will try the Strength of a Team of Horses, to break their Roots; and therefore it should excite the Care of Farmers to prevent their Growth, by giving the Land frequent, deep, and clean Plowings: To this Purpose, the excellent Method of boutting stiff Lands, and boutting off the last Bouts, prevents the Breed and Increase of the Honey-suckle: And it is on this Account, that the two Horse small Farmer suffers much, because he is not strong enough to perform this Work, nor to prevent the Breed of this, and some other tenacious potent Weeds. The Honey-suckle is so much planted in some Fields, that it has tempted several to let it stand for an intire Crop of Grass to feed Cattle, or to mow for Seed, which in some swampy Grounds is serviceable; for though it is like Clover in Head and Root, yet it won't hove the Cows or Sheep as Clover; yet, if you let it lie three Years together, it is wrong, for then it will be apt to run its Roots too far into, and about the Ground, and so become a lasting Enemy: Its Cure is to chalk the Land, and to dig with the Mattock, or to give it deep and often Plowings, especially at Fallow-time in a dry Season.

The Thistle. Is said to be an Indication of good Land, but where-ever it happens to get Possession, it is no welcome Guest, for this does its Share of Damage among Corn, proportionable to its Root: It is most common in Vale rich Lands, and too often in our *Chilturn* Grounds, where in both, if it is let stand to Seed, the Winds will carry its light Flew to great Distances: This I know a great

Farmer

Farmer
Men w
paddle
near hi
into the
plowing
Clover
and dig
knew a
pence t
Year fo
Meadow
come t

Rags
many
the Go
of I ha
is in it
bad H
Hand,
row B
Surface

Wild
the G
Grass
but wh
may se
let the
Neigh

Arf
got o
many
I lately
recay,
not gu
Grain
Groun

Farmer so careful to prevent, that he makes his Men with a Mattock, or with the Iron-Thistle paddle every Year, to destroy them in the Lanes, near his Fields, lest its feathery Seed should blow into them and grow. Its Cure is often and deep plowings, chalking the Land, and sowing it with Clover; or better by a Man's following the Plough, and digging the Roots out of the Furrows. I knew a certain Man to be at eight Pounds Expence the first Year, five the next, and three the Year following, to paddle up Thistles in the same Meadow feeding Ground, and by this Means overcome them.

Ragweed. This is a tall bunchy Weed, that has many yellow Heads or Flowers, somewhat like the Gould; it chiefly infests Meadows, some where-of I have seen over-run with it in *August*, when it is in its full Perfection: This comes meerly by bad Husbandry, for it is easily pulled up by the Hand, after a great Shower of Rain, having a narrow Bunch of fibrous Roots, that grow near the Surface like a Crow's Foot.

Wild Teasels. These are tall Weeds that exhaust the Ground much, and grow mostly in neglected Grass Grounds: They grow but in few Places; but where they are, these, like the large Ant-hills, may serve as Beacons to the passing Traveller, to let them know there lives a bad Husbandman in the Neighbourhood.

Arsmart. This has a bunchy Root, which, when got old, runs deep into the Earth, and, having many Fibres, cannot then be destroyed by the Plough. I lately saw a moist, loamy, gravelly Field near *Bille-recey*, quite over-run with it; and though it did not grow very high, yet it caused a thin Crop of Grain to be carried to the Barn. Chalking the Ground, and plowing the Land clean, while it is young,

young, destroys it ; so likewise do Crops of Turneps and Cale.

Horse-Mint. This also annoys Crops of Corn that it grows among, and cannot be weeded, because of its innumerable Stalks, but may be easily killed by Chalking, clean Plowings, and by Crops of Turneps or Cale.

Wild Sorrel. This ugly Weed likewise very much damages the Grain it grows among, and for the aforesaid Reasons cannot be killed by weeding, but by sowing of Turneps or Cale, chalking the Ground, and plowing it often clean.

Colt's Foot, or dunny Leaves. This is a most pernicious Weed, and very hard to destroy, because its Roots are great Runners, and draw the Goodness out of the Ground, to the Damage of the Corn : In *March* it appears by its broad, yellow, round Flowers or Heads, which are succeeded by its broad Leaves, that grow near the Ground. Its Cure is to chalk, plow, and hough the Land, but best of all by the Break between Drills of Corn : Carry off its Roots, for its very Pieces will grow ; and plow with a Fin on the Share.

Couch or Twitch-Grass. This is caused by the Sourness of the Ground, and therefore most subject to grow in low, wet, clayey Lands : It cripples the Growth of Corn to a great Degree, and very expeditiously increases its Roots. Plowings only, in such Soils, will hardly do ; and therefore they use the great heavy Harrow, which alone is sometimes full Work enough for six or eight Horses to draw, and then it admirably tears up both Root and Branch of this horrid Grass-Weed, which totally to destroy, they lay it in Heaps to burn.

Wild Thetch, Tyne, or Bind-Weed. It is an ugly Companion among Corn, especially if the Spring-time is attended with Wets and Colds, for then it is natural for this Weed to get the Predominancy, which

which
Clays
from
hauling
the Ea
a who
deep
Groun
most v
Blac
that k
much
May,
a Foot
and L
wet S
the la
the sev
to run
better
mage
occasio
wet co
a dry S
Soil, t
Grou
bears a
the H
tom of
Inch a
foul th
when
difficul
clean S
Cliv
Tyne-
Its See
some I

which sufficiently appeared in 1732, in the moist Clays and Loams, where it grew up Creeper like from the Bottom to the Top of the Wheat Stalk, hauling and pulling down the same, till it spoiled the Ear, and thus it extended its Mischief to almost a whole Field of Wheat together. Its Remedy is deep Plowings, due Fallowings, and chalking the Ground; for according to my Observation, it comes most where these three are chiefly wanting.

Black Bennet. This is a Sort of Grass-Weed, that kills vast Quantities of Corn, or at least very much lessens their Crops. About the fourth of May, 1730, the black Bennet began to show itself a Foot long among Grain that was sowed in Tilth and Lay-grounds, having before that Time a long wet Season, attended with easterly Winds, when the latter sown Wheat fared best, because when the severe Weather was over, its Youth caused it to run faster than the forward sown, and to get the better of the Bennet. This Weed does most Damage among Wheat, in Clays, and moist Loams, occasioned chiefly by sour, rough Tilths, and a wet cold Spring: Its Remedy is a fine Tilth, and a dry Season to sow the Corn, in a well manured Soil, that has been soundly chalked or limed.

Crow-Needle. This is a spreading Weed, which bears a small white Flower, and grows about half the Height of the Corn: Its Seed lies in the Bottom of Points like Needles, which are about an Inch and a half long, that oftentimes very much foul the Corn, by their being broke to Pieces, when they are thrashed with the Grain, and are difficult to get clean out: Its Remedy is sowing clean Seed in a pure Tilth.

Cliver. This twists about the Wheat like the Tyne-Weed, and does its Damage much like it: Its Seed, is a little round Burr, which requires some Labour to clear out of the Grain by the Screen

and the Throw ; both this, and the Crow-Needle Seed, will grow again if sown, though some say not : This is likewise best prevented by sowing clean Seed, and a good Tilth.]

Darnel. This is a rampant Weed, that mostly hurts Wheat ; because in Barley, its Quality is to add Strength to the Beer, by making it more heady, which causes the Malster not to find much Fault with it, if not in too great a Quantity : But as the Colour of its Flour is brown, feels rough, and has some Scent with it ; the Mealmen don't like it among Wheat : This is a most multiplying Weed, for many of its high Stalks will carry twenty Side-shoots, and every one fix Corns in it, so that twenty of its Heads are enough to spoil half an Acre of Wheat : It is of so hardy a Nature, that it is usually said, the Dunghill will carry it to the Field. A Farmer that rented sixty Pound a Year, said, he lost twenty Pound by it, in one Summer's Crop ; and in the Barn, it is almost impossible to separate it from the Wheat ; because, a great Deal of it is near as big as a Wheat-Kernel ; nor will it all swim on the Top of Brine or Water, as most other Seeds of Weeds will, for that the largest Seeds of this are as heavy as those of the Wheat : Its Cure, is by throwing it in a Barn, running it through the Wire-flat Screen, or better, in the new invented Round-wired Screen, that the Wheat may be sent clean to Market : Its Prevention is, by sowing clear Seed, which ought to be changed every Year, from a different Soil.

Chef-Seed Weed. This is a Sort of Darnel, but grows in a different Manner, hanging its small Stalks, which are about an Inch long from the great one, in several little Bunches.

Cockle. Is a little Seed with a black Hull, full of white Flour, for which Reason the Mealmen do not much dispute its being among Wheat, if not

in too
times
every

M
which
most
their
are n
the A
Creat
cripp
Clays
showe
Seaso

We
toes
them
Tilth
on th
tance
they
Grou
this n

We
quick
sift of
Flow
lected
Sets b
Way,
of Gr
charg
use, i
pare c
ter a
the y
turvey
ly kil

in too great a Quantity ; but as little Seeds oftentimes do a great Deal of harm, clean Seed changed every Year prevents it.

May-Weed.— This is a stinking venomous Weed, which bears a white Flour, and is well known to most of our *Chilturn* Reapers, who sometimes have their Hands and Legs so blistered by it, that they are not capable of working till they get cured by the Application of House-leek Juice, mix'd with Cream, or some other Medicine: It very much cripples Grain, and grows chiefly in wet Loams, Clays and Gravels, by Means of four Tilths, and showery plowing Times, which make a dry sowing Season, and a sweet fine Tilth, its Cure.

Weeding Potatoes.— Now weed your Field-Potatoes by the Hand-hough, by this you will make them have large Roots, and keep the Ground in a Tilth for plowing once or twice, and sowing Wheat on the same in *October* following. A Foot Distance should be left between each Potatoe, and then they will have Room to encrease in Number, if the Ground was well managed, to great Profit. But of this new Improvement more in *February*.

Weeding Banks.— Our Banks which are set with quick Sets for making new Hedges, generally consist of Virgin Mould ; there is a Ditch-Bank, and a Flower-Bank without a Ditch, both which, if neglected, will soon be over-run with Weeds, and the Sets become stunted ; when it so happens, the old Way, is to use the Knife to dig up the many Roots of Grass and Weeds, which is very tedious and chargeable ; and therefore the new Method, that I use, is to take a Spade in this or last Month, and pare off the upper Crust of Grass, immediately after a Shower of Rain, and as near them between the young Shoots as possible, then turn it topsy-turvy, and lay it in the same Place, which not only kills the Weeds turn'd up, but also smoothes

the remaining Roots left behind ; and if there were any of the deep rooted Sort got into the Ground, then pulling them first up by the Hand when the Land is moist and loose, will destroy them: This Method ought annually to be practised during the Youth of the quick Sets, as being very serviceable to keep off the too powerful Heats of the Sun, and lodging the Rains ; but where the Spade cannot, the Knife must be used. In the Vale of *Aylesbury*, where Wood and Fences are scarce, they carefully observe this good Management, and spare no Pains nor Time in such a beneficial Branch of Farming ; for where-ever it is slighted, it is because they do not consider, that a good Hedge will pay its Owner, as much as if Corn grew every Year on the same Ground.

Digging and Weeding by the Mattock. This, and the following Month is the best Time in the whole Year to employ the Mattock, either after the Plough, in the Furrows in Fallow-Lands, or otherwise, for extirpating the Cammock, Honey-suckle, Hog-weed, Briars, Coltsfoot, or other Roots, for now they are firm and full of Sap, and by Consequence will bleed and run it out when wounded, which will greatly, if not quite destroy the Weeds ; but then be sure to carry off their Strings and Bits, lest they grow and become a second Increase.

Weeding Standard Trees.— Now carefully pull, pinch, or cut off the Shoots at the Bottoms or Sides of your Fruit or Timber-Trees, and neglect not doing it in this, or at farthest in next Month, for these check the Sap's Ascension, and cause both Fruit and Tree to pine, and sometimes kill the Tree out right. This Operation also being performed in Summer, very much hinders their second Growth for some Years. Moss also, after a Shower of Rain, should be scraped, or rubbed off with a Hair-Cloth : Pismire Banks likewise, which sometimes

are

are on the
Tree, f
ten of h
Destruc
ny othe
Insects.

Weed
Sheep
back th
Hundr
ing its
keepin
and ru
ceptib
none :
Chedin
for a
Spot
ry thi
amon
miscu
Weed
Reaso
bloss
phin
Field
wife
you

The
men
dow
Bear
fion
and
get
key
Ber

are on the Roots, or at the Bottom of the Body of the Tree, should be carefully dug up ; for these are often of bad Consequence, and tend to its Ruin : Their Destruction you will have in next Month, with many other curious Matters relating to Vermin and Insects.

Weeding-Beans. In this Month be sure to keep your Sheep in Fields of Horse-beans, to break and keep back the Hell-weed, which sometimes spoils many Hundred Acres of them in a Summer, by fastening its Thread on the Bean-Pods and Stalks, and keeping them from thriving, and thus will grow and run many Poles together, without any perceptible Root, which has made many say, it has none : But this is a Mistake, as it was proved at *Cbedington Farm*, in *Bucks*, where the Tenant's Son for a Trial, threw its Threads, or Seeds on a little Spot of Grass-ground, and it presently came up very thick. The Sheep are certainly the best Weeders among this large stalked Corn, which is sown promiscuously, for they will clear it of all Sorts of Weeds, and yet seldom hurt the Beans ; for which Reason, some will let them go into them, even in blossom Time. In some dry hot Seasons, the Dolphin black Fly proves very destructive to both the Field and Garden-Beans, whether drilled or otherwise : But to prevent this Mischief, I shall here give you two fine Receipts.

To save Crops of Beans by destroying the Dolphin Fly. These Insects always begin to make their Lodgment on the Top of this Vegetable, and increase downwards till they kill all or most of the growing Beans ; therefore, when they have first got Possession, mow off the Heads of the Beans with a Scythe, and the Fly will never rise again, for they cannot get upwards. The next Way is to do it by Turkeys : A certain Farmer's Wife used to scold at her Servants for letting the Turkies go into a Field of Beans

Beans near her House ; but instead of Mischief, they did great Service ; for they proved excellent Weeders, by pecking off the Flies for their Food, and caused more Beans to grow on four Acres, than was in forty of her Neighbour's that Summer. — Now draw your Prong or Plate-break, by one or two Horses, between the Rows of drilled Beans ; the first is too loosen the Ground, and kill the Weeds, the other to cast the Mould up to their Sides : This most serviceable Way caused such vast Crops both of the Horse and broad Beans in Fields this wet Summer, 1738, as made them grow to six or seven Feet high. As soon as ever the Blossom falls off from the Bottom of the broad Bean Stalk ; that is, as soon as the lowermost Kid appears, then cut or pinch off just the Head of the Stalk, for then as the Stalk kids upwards, this Method will stop its shooting in Length, make it corn better, and less liable to the Dolphin Fly ; but this Work is rather too tedious to be done among Horse-beans.

Weeding Pease.— Early in this Month, or as soon as the Weeds are long enough, with the Hand-hook of five Feet long, weed out the Thistle and others from among your Pease, before you begin upon any other Corn ; because otherwise they will draw and cover the Ground so as to cramp the Growth of the Pease ; for these are more tender and precarious in their thriving, than many other Sorts of Corn. If the Pease are drilled, draw your Horse-break between the Rows ; and if Occasion be, use the common Hand-hough afterwards, to lay the Mould closer to the Stalks. The very Beginning of this Month, you may sow Hotspur, or *Essex* Roothing Pease in Drills, in warm Soils, to come in *September*, or *October*.

The cheapest Way of weeding Hops, and their other Management in May.— In this Month those Vines
which

which
not to
guided
the fe
Vine
weak,
be twi
the C
with
Yarn,
them
do for
tion i
the P
close
about
do no
der m
more
somet
fered,
load
strike
will
tying
give
fully
anno
they
anoth
one l
Day
are t
lentl
the l
by t
two
will

which are grown two or three Feet long, and have not taken to the Poles of themselves, must be guided by the Hand to the nearest Pole, that has the fewest Vines, observing to couple the strongest Vine to the tallest Pole; the Number is three weak, or too strong ones to each Pole, that are to be twisted at an equal Distance, and according to the Course of the Sun, when they are to be bound with Broom-shoots, wither'd Rushes, or woollen Yarn, but not close, least the Pressure should Damage them; two or three Strings at proper Heights will do for one Pole, and so proceed on till the Plantation is finished; when they have closely taken to the Pole, cut off all the other weak Vine Shoots close to the Ground: The next tying must be about four Feet and a Half high, and if the Vines do not keep close to the Pole, the standing Ladder must be employed to tie them higher up once more; and though in wet Summers, the Vines sometimes out-run their Poles, yet they must be suffered, unless they hang down very much, and overload them, and then with a long Switch, you may strike off their Heads, which if done in Time, will encrease their Branching: What I here call tying, is done by twisting the Yarn, that it may give way as the Vine enlarges itself. Now carefully keep all Weeds, and the Seeds of Weeds from annoying your Hop-Ground: At a certain Place, they chiefly do it by the Back-hand-hough, and at another, they use the Prong-hand-hough with which one Man will clean Half an Acre of Ground in a Day, which before has been loosened. But there are two other late invented Machines that excellently clean the Ground of Weeds: One is called the Niget, or the one Wheel-hough-plough, which by the Help of two able Horses in Length, and two Men, one to hold, and the other to drive it, will greatly loosen the Earth, kill the Weeds, and
let

let in the Air and Rain ; but its nine little Houghs or Feet cause so hard a Draught for two Horses, that they are obliged to stop at every fifteen or twenty Feet for the Ploughman to draw it a little back, and raise it out of the Ground to begin again, and then it leaves a high Parcel of Earth in the Place, that must afterwards be spread by a Forkman : The other is the Sheim or Prong-Plough, drawn in a high two Wheel Carriage, guided by its two Handles, and held by a Ploughman ; who, with it and two stout Horses, can plough nine Acres in four Days (if the Earth was loosened before) for this is not to be lifted as the former is, out of the Ground, unless it be at Turnings, and yet will plow well, if the Land is a little stony, which the other will not. Others, will dig the Ground to clear it of Weeds with the Prong-Spade, which also, in stiff or gravelly Earths, performs well ; and in a loamy, sandy Earth, one Man with it will loosen Half an Acre a Day, and destroy all Weeds that were growing in the same. Take Care you do not touch the Hills with the Ploughs, least they tear the Roots of the Vines, for these are only to be managed by the Spade and the Hand-hough ; the latter to loosen the Ground, and kill the Weeds, and the former to supply the Hills with Parings of Mould, which are to be laid on at each weeding Time, after some Rain, to keep the Hills in a continual Moisture, and better nourish their Roots : Yet is this general Rule not without an Exception, for when the Vines appear vigorous, and full of Sap, give them no more of this Assistance, least it make them run too much into Stalk, and hinder their bearing Hops ; for as it is said, you may enrich the Roots, when you cannot check them. Mr. Godfrey, of Town Malding, told me, he made his Ground so rich, that for several Years he could not stop the Roots from causing too rank

a Vine

them; besides which, both in this Earth, and in stiff Grounds more, the Sheep, by their Weight and cloven Feet, tread down the Ground into a close Texture of Parts, and thereby make it more chargeable to get loose and light again, therefore they account it best to draw them; however, for these Reasons, most Owners of Hop Grounds refuse to sow any Vegetable between the Rows, yet I must commend a great Improvement of this Nature, which I saw in a By-part about thirty Miles from *London*, in 1738, where the Owner had planted a Number of uncommon Roots, which every Year returned a considerable Profit, and did little or no Damage to the Hops; this I intend to write of next Month.

Weeding Dwarf Roses. This belongs chiefly to the Hop Farmer or Planter, because it is a most profitable Vegetable when it grows in Hop-Alleys, which in a certain Country was exposed to my View, I mean the red Rose used by the Apothecaries. These must have a proper Soil to grow in, and be well weeded in this Month in particular, by the Knife and Hand-hough, after the Hough-Plough or Break has been as near as it could go. These Sort of Roses grow about two or three Feet high, and two or three Feet broad like a low Hedge. Their Manner of planting, in the Middle of Hop-Alleys, I intend to shew in a proper Month, and their Gathering I shall take Notice of in *June*.

Weeding the large black and white Poppey. Now weed your Poppies by the Hand-hough, whose Seed was sown promiscuously, that they may grow the larger, and be the sooner ripe for gathering about the Beginning of *August*. In *Surrey* a Man told me he made three Pounds of as many as grew on five or six Poles of Ground, and I lately saw them flourish in an Orchard to near five or six Feet in Height;

Heighth; they are commonly sold to the Apothecaries, and are a great Improvement, and I am of Opinion that they may be sown in Drills to a better Purpose. Their Culture I intend to publish in a proper Month.

Weeding Lucern. In this Month weed that Lucerne, whose Seeds were drilled in, in sandy or low marshy Grounds in *February* or *March*. I will suppose the Drills to be about twenty-four Inches asunder, and then the Horse-Break may in this Month be drawn through the Intervals, and after that the Hand-hough may be used: Or, if Lucern was sowed with an Intent to hough the Ground between the Master-Stalks, as Turneps are houghed, the common Hand-hough must be used; but then there must be two Houghings at least employed to do the Work clean. The common Way is to sow this Seed promiscuously as we do Clover.

Weeding several Vegetables. In this Month weed Saffron, Woad, Liquorice, Coriander-plants, Carraways, Teasels, Madder, Hemp, Flax, Weld, Gooseberry, and Currant Bushes, destroy Fern and Rushes, and weed Potatoe Grounds: Several of these may be made to grow better in Drills than in Broad-lands; but, as to Potatoes, there is a new Way of planting them to a very great Advantage, which I intend to publish in *February*.

CHAP. IV.

Of Manures and Dressings proper for this Month.

DUNG or Muck. In this Month employ what Dung you have left in your Yard, by carrying it on your Fallow-Ground, which has been once plowed in *April*; spread it well, and plow it in, the latter End of this Month in all stiff Soils: It is much better so, than to let it remain in a Clamp 'till Turnep, or Wheat Seed Time, because by then it would be much wasted by the Air, Rain, and Sun; but, if in such Earths it is mixed in due Time, it will ferment it, and make it short, sweet, and rich, for the Reception of Turnep, Cole, or Wheat Seed, and thereby be better prepared to admit their thready Roots into its innumerable Pores, and administer its fertilising Salts, to the forwarding a vigorous Growth of the Vegetable; and thus the Turnep, in particular, is pushed on so quick, as to make them out-run the Damage of the Fly, Slug, and Worm, as well as the Prejudice of hot and dry Weather, by which an early Crop will be brought on, and their Bulk greatly increased; when, at the same Time, your Neighbour, who has not made Use of this Improvement, may lose his Crop by several impending Accidents, or at best get only a Parcel of poor stunted Turneps.

But, in this Field Oeconomy, particular Regard ought to be had to the Nature of the Soil: For if it is a rasby Gravel, or a dry, hungry, hungry Ground, that you are to sow Wheat in at *Michaelmas* or later, then you ought to forbear laying on your Dung till you are just going to plow and sow it; in this Case the Dung must be
fully

fully rotted, else the Harrows will tear it out again; if the Seed is sown in Broad-lands, and if your Ground is sown in Stitches, and the Dung be long, it will be apt to bury some of the Seed, make it lie in unequal Parts, and breed a Mould, which will prove destructive to the Grain: Thus the too common Mistake, and fatal Consequence of dunging such Land, is avoided, which, by too early dressing it, would give such a hawky Soil an Opportunity of devouring the Dung, before the Growth of the Wheat is half over, and then you may expect a poor, starved Crop.

Mould and Lime. This Month being a leisure Time with some Farmers, get what Mould you can, and mix it with Dung and Lime; the latter will make the grazzy or rooty Mould run into small Parts, and so ferment them all, as to make them incorporate in a fine Manner, and become fit to be laid on Land, and plowed in, in the Month of July, for Turneps or Rye, or for Wheat afterwards. Or if Mud is so served, instead of Mould, it will answer to a good Purpose, and their Proportion should be three Parts Mould or Mud, and one Part Lime, or about ten Loads of Mould or Mud, to two Loads or ninety-six Bushels of Lime, to be laid length-ways, in a long, narrow Heap, broad at Bottom, and narrow at Top, somewhat like a Hog's Body, for the Rain to wash the better off it. This Composition makes a most excellent Manure for nourishing both Corn and Grasses; and therefore is very proper to be used on both Plowed and Meadow-Lands; and this advantageous Practice is now become so much in Esteem by the best of Farmers, that, in Order to come by this delicate Dressing, they often dig up their Mould, and carry it away for this Purpose, from the very Roots of their Hedge-Plants; and, to do this to the best Advantage, some will first lay a Quantity of

62 *Of Manures and Dressings, &c.*

of Mould or Mud all along the Bottom, then a Layer of Lime and Dung, and Mould at Top; others will lay some Mould first at Bottom, and then a long Row of Stone-Lime, and on both Sides of it, Mould and Dung mixed, which is all, some Time after, to be mixed with a Spade or Shovel, till it is incorporated into one fine Body, and then it will fertilise almost all Sorts of Land, as being an agreeable Manure, which will rather destroy than breed Weeds: But of Lime and these, more hereafter.

Vale-Men discommended in dunging their Land. As I have now writ on the Dunging, or Dressing *Chilturn* Lands, I shall here touch on that of Vale Grounds; in which Respect I cannot help dispraising those, who after their Dung is once thrown up in their Yards, in a Clamp in the Spring Time, do no more to it than lay and spread it on their ridge Lands, the latter End of this, or in the Month of *June*, against the Wheat Season, as I have often known them do, where they let it thus lie on the Surface of the Ground, exposed to the Sun, Air, and Rain for a Month or two together, before they plow it in, till most of its Quintessence is exhausted: But, in Defence of this Practice, they alledge that, in this Time, the Rains wash its Goodness into the Earth, and they enjoy it this Way; which I think a poor Excuse, for many Times no Rain falls in that Space of Time, and then their Plea is groundless: But allowing that there should some wet Seasons happen, yet the Interims of dry Weather must consequently rob the Dung of Part of its Vertue, while it thus lies above Ground: But of late they are become a little better Husbards, by rotting their Dung against *Michaelmas*.

Dunging Meadow Ground. Now be increasing your Dunghills, in Order to get them rotted and
fine

fine ag
of the
it on
not till
Dungh
and rot
the fin
mixes
thereb
ly Mo
then
the E
certain
Dungh
able C
Lay-st
seven,
most
and f
often,
again
To
Loam.
fallow
Acre,
of Co
them
to pr
in as
a-cro
Stitch
are pl
you r
Time
buryin
the b
and
the f

fine against the Time you get your Field clear'd of the first and second Crops of Grass: Some lay it on after the first, to increase the second; others not till *October*, when it is fed bare. This Sort of Dunghill requires to be turned often, mixed well, and rotted to the highest Perfection of Fineness; for, the smaller its Parts are, the better and sooner it mixes with the small Roots of the Grass, and thereby brings on an early Cover, and that an early Mowing, once if not twice in a Summer, and then great Burthens; as is annually proved by the *Edgware* and *Hendon* Men in particular, who certainly are the most curious Managers of a Dunghill in this Nation, and yet are at a considerable Charge all the Summer, to bring their *London* Lay-stall, Muck and Dung, and Coal-Ashes, three, seven, and ten Miles on the Wheels, which they most carefully mix with Highway Dirt, Mould, and sometimes Chalk, and incorporate them so, often, till they attain a most exquisite Fineness, against their spreading Seasons.

To alter red or other Clays, and reduce them to a Loam. ON the Clay-Land, that was last Month fallowed in Broad-lands, lay in Heaps, on one Acre, the Quantity of sixty or a hundred Bushels of Coal Ashes; the more the better, and spread them with a Shovel or Spade in a dewy Morning, to prevent their Flying too far; then plow them in as shallow as possible into Broad-lands again a-crofs the last Way, or into four thorough Stitches, or by hacking the Ground. If the Ashes are plowed into Broad-lands shallow the first Time, you must go deeper with the Plough the second Time; and thus you will be in less Danger of burying them, by which the Clay and Ashes will the better mix, and be exposed to the Sun, Air, and Rain, for its Melioration; at *Michaelmas*, the same may be sown with Wheat in Stitches, as
the

64 *Of Manures and Dressings, &c.*

the best Way to cause a further Incorporation of these two contrary Bodies, and bring them into one: And, to add to this great Improvement, in *January* following, sow forty Bushels of flaked Lime over the same Acre, or twenty-five Bushels of *London* Soot; either of which will still forward the Reduction of the Clay's Body, shorten and overcome it better than Sand, which is of sharp Parts, and therefore the easier devoured by such a tough, tenacious Earth: And though Coal-Ashes are likewise endowed with sharp Particles, which are binding and drying, they are yet of a very shortening Nature, insomuch that, after they have been mixed by repeated Turnings of the Plough, and two or three Crops have been obtained, they will so divide and adhere to the moist, viscous Body of the Clay, as to reduce it to an intire loamy Earth; and the more so, if such dry Manures of short, rotten Horse-dung, Wood or Coal-Ashes, Lime and Lime-Ashes, Malt-Dust, Oil-Cake-Powder, and the like be often used in this Work. These, as well as the Scratchings of the Harrow-Tines, the Movements of the Plough, and the Intanglements of the fibrous Roots of the Corn, do all contribute to cement the Clay and Ashes together, so that, by these Revolutions, a barren Clay may be made a fruitful Loam, at a small Charge, and in a little Time. The Proof of this is obvious, from the great Quantities of Clay and Ashes that are mixed together in the adjacent Parts of *London*, which, after some Time lying, becomes a loamy Body, and of a Hasle Colour, for making Bricks and Tiles.

Alterations of Manures and Dressings. This is absolutely necessary in both Meadow and Arable Grounds; for in the first it has been proved, that, by sowing Ashes some Years together, they have lain at the Roots, violently drawed the Goodness

out

out of
Plants
Hay.
annual
Arable
ly dre
ample
three
Retur
alway
he can
mix F
ing i
wards
confid
Lime
Grass
Reaso
Ashes
on D
Cart-
before
twelve
Piece
to ha
Head
Shilli
by en
feedin
Straw
confu
Grass
Moss
Grou
the I
the S
M
Mon

out of the Ground, and in Time so choaked the Plants, that they produced but very thin Crops of Hay. So Horse-dung, for the same Reason, may be annually applied, till the Ground will bear no Grass. Arable Land will also complain, if too frequently dressed with one Sort of Manure: As for Example, if Soot, or Lime, is used each on two or three Crops together, the Consequence will be thin Returns of Grain; a judicious Farmer therefore always takes Care to change his Dressing as often as he can; hence it is, that many are so curious to mix Earth, Lime, and Dung together, as best agreeing in the Dunghill, and on the Ground afterwards. Again, the Nature of Manures is to be considered for their alternate Application: Soot, Lime, and Ashes generally produce a short, thick Grass, Dung, or Fold, long Grass; for which Reasons, Dung, or Fold, should follow Soot, Ashes, or Lime, and so on; likewise where Grass, on Downs or other dry Bottoms, is naturally short, Cart-dung or the Fold should be made Use of, before the burning Sort. A Gentleman that keeps twelve hundred Sheep lays so great a Stress on this Piece of Husbandry, that he hopes by this Means to have Sheep worth sixteen or eighteen Shilling a Head, instead of a smaller Sort of eight or ten Shillings Value, which he used to have; and that by employing his Fold on such short Grass, and feeding his Sheep in the Winter with Pea or other Straw out of Racks; for either Hay or Straw, consumed in this Manner, warms the Roots of Grass, keeps off Chills, prevents the Growth of Moss, and, by the Worms drawing it into the Ground, becomes a Sort of under Dressing, besides the Improvement of the Dung, Stale, and Heat of the Sheep's woolly Bodies.

Marles. I am informed that in *Cheshire*, in this Month, or in *June* or *July*, they dig Marle to
K dress

66 *Of Manures and Dressings, &c.*

dress their Ground withal, which, being open Field-Land, lies in *Buts* of Grass (according to their Term) which perhaps has continued so, ten, twenty, or thirty Years : These they plow up for Corn, and dress with Marle; of which there are four several Sorts, *viz.* The Fustian, the Cowshit, the Black-steel, and the Shale : The Fustian Sort is an Earth composed of a fat Loam and Sand, of a reddish Colour, so soft and loose, that they spit it with a Spade, and lasts but four or five Years, though relieved with other Dressings in that Time : The Cowshit, which is the richest Sort, looks to be an Earth mingled with Lime, having many little white Specks in it, and will last seven Years with Assistance ; this is all spitted or thrown out with the Spade : The Black-steel Marle is of so hard a Nature, that they dig it with Mattock and Spade, and will not all dissolve in seven Years, nor will all its Goodness be spent in twelve : The Shale-Marle is of all Colours, and of a stony Nature, which obliges them to peck and hew it, and then it comes like Bits of Stone ; yet this will last but four or five Years, though helped with other Dressings : Of these they sometimes lay above five hundred Heaps on one Acre, and, after it is spread, they let it lie dissolving the remaining Part of the Summer, and the whole Winter, till they give it one Plowing, between *Christmas* and *Candlemas*, and afterwards harrow in Oats ; the next Time they muck well, plow, and sow Barley ; then for the next Crop they give the same Ground a Fallow, and dress with Lime and Dung, and sow Wheat, and Beans after that : Thus, when they have got about seven Crops, they lay it down for natural Grass, which of itself will be a Crop the very next Year ; though some more prudently, of late, lay it down with artificial Grasses. In their inclosed Meadows, they

they do
have su
Growth
with D
arable
heard o
sing a
which,
his Gra
pled hi
cause h
Dressin
folk, an
and do
Gravel
Use of
which
mending
pening
better
it for
which.
Cart-I
Years
it in
where
in the
Cockl
ed, w
Groun
rather
far fro
Marj
ly Ea
many
exceed
little

they do not use any Marle, because they find it to have such a binding Nature, as to hinder the Growth of Grass; for which Reason they dress with Dung only; nor will some Marles answer in arable Land, where the Soil is not agreeable. I heard of a certain Farmer, who was ruined by dressing a clayey Ground with a stiff reddish Marle, which, in a dry, hot Summer, burnt and dried up his Grain, and, in a cold, wet one, chilled and crippled his Crops; and this he suffered the more, because he was poor and could not purchase alternate Dressings. In *Hampshire, Surrey, Kent, Essex, Suffolk, and Norfolk*, Marle is their chiefest Manure, and does a great Deal of Service, especially in their Gravels and Sands. About *Woodbridge* they make Use of a shelly Marle, which they there call *Cragg*, which about thirty Years ago was found out by mending a Cart-way with it, where, afterwards happening to sow Grain in the same Place, it proved a better Crop than ordinary, and ever since they dig it for a Manure: It is a reddish, shelly Earth, which, being laid on to the Quantity of twenty-five Cart-Loads on one Acre, dresses it for seven or twelve Years; so that, at this Time, they have dug Pits of it in many Places, and carry it to great Distances, where it returns them prodigious Burthens of Grain in their hungry, sandy Grounds. In this Earth, Cockle and other Shells are commonly found mixed, which has caused some to imagine, that this Ground was formerly gained from the Sea; and the rather, because the Salt-Water is at this Time not far from it; as it is said of the most fertile *Romney-Marsh*, whose Bottom seemed to me to be of a shelly Earth, which has been gained from the Sea not many Years since, and produces such Grass, which exceeds all others in *Kent*, for fattening Cattle in a little Time without rotting them.

68 *Of Manures and Dressings, &c.*

Soot. In the Year 1735, the Weather was dry almost throughout *May*, and Part of *April*, which set the Barley which was sown late in Gravels, Chalks, and Sands, to that Degree, that several Fields looked bald the latter End of this Month, especially where they dressed the Corn that grew on such Soils with Soot, which helped the more to dry away their Grain; whereas, had they soaked their Barley-Seed according to my Receipt, and then footed it betimes, this fatal Misfortune had been prevented; however, one of my Neighbours was so wise as to foot his Wheat in *January*, and tho' it was in a chalky Land, yet by the Help of the early Rains it was a most flourishing Crop. But neither Barley nor Wheat should be footed after the twenty-fifth Day of *April*, unless the Barley was very latter sown indeed; because the Wheat, and commonly the Barley, have then done gathering and branching, and got upon the Spindle. As soon as *French* Wheat or Weld is sown in this Month, Soot may be either sown over the same Ground, or better harrowed in with the Grain. It is likewise proper to be sown over young Turneps that have all just appeared. Or, in Case you have been necessitated to sow Barley the Beginning of this Month, Soot may be used to its Improvement, in the Manner it is done with the *French* Wheat or Weld.

Ashes. If Barley is sown so late as the Beginning of *May*, lean Peat-Ashes in particular may be applied over it, or harrowed in with the Grain; but Ashes burnt from fat black Peat, such as they dig by *Newbury*, are of such a sulphureous Nature, that they are afraid to lay them on their Barley; and they do not dress their Wheat with them till the Spring is advanced, and then they are sowed over it. The Account of this rich Manure take as follows, viz. The Earth is taken out of a black moorish

moorish
which
this the
Time,
Load a
is to b
burn it
laying
increas
Vent;
siderab
of this
Heaps
was d
found
Time
their i
which
that f
over
Rape-
nientl
to so
enfue
to co
as in
imagi
ling
are b
great
from
from
phur
to t
there
Ash
sand

moorish Ground, by a wooden, narrow Scoop, which brings it out like a long narrow Brick; this they lay on the Ground to dry in the Summer Time, and then sell it for eight Shillings a Waggon Load as provisional Fuel for Families; But when it is to be used for a Manure, after it is dried, they burn it in Heaps of ten, twenty, or thirty Loads, laying on more Peat on the Outsides, as the Fire increases within, to keep it from having too much Vent; however, in Time there will appear a considerable Smoke; and it was on the twenty-third of this Month, 1737, that I saw about ten great Heaps, burning for this Purpose, near where it was dug. The great Use of these Ashes was found out about thirty Years ago; but in a little Time after were brought into Disreputation, by their imprudently laying on too many at a Time, which burnt up the Corn. Afterwards they found that six or ten Bushels were sufficient to be sown over an Acre of Wheat, Pease, Turneps, Clover, Rape-Seed, or *St. Foyne*, as early as they conveniently could. But, as I said before, they are afraid to sow it over Barley, lest a dry Time should ensue and burn it up; for these Ashes are reckoned to contain three Times as much Sulphur in them as in the Coal-Ashes; and this they reasonably imagine from their great brimstony Smell, sparkling and jumping, when they are stirred as they are burning, and drying up the Corn by their too great Heat. These Peat-Ashes, and likewise those from Wood or Coal, will help to keep off the Slug from Pease and other Grains, by the Salt and Sulphur contained in them, and very much conduce to their Preservation in cold wet Seasons. But there is no such Danger to be feared from the Ashes of that Peat, which grows as a Turf over sandy Bottoms, as great Quantities do on *Leigh-*

ton Heath in *Bedfordshire*, for these are as much too lean, as the other are too rank.

Penning Sheep, or Dressing by the Fold. Now Folding is in Perfection, by Reason of the Commons and Fields being firm of Grass, and which is apt to cause Distempers in Sheep, by being too full of Blood, occasioned by their greedy Feeding after a long penurious Winter; and this has made me often wonder at the ill Management of most Farmers, who seldom ever use any Medicine to prevent such Plethory or Overfulness of Blood, and the red Water, which Sheep are very subject to at this Time; though both may be easily prevented, if now and then, at Spring and Fall, they give them a few Doses of my Barrel Liquor, which I have prescribed in last Month; and is a Thing perfectly necessary for the Relief of this most useful Creature, who in Course is amassing foul Humours by the Dirt, Wet, and Cold of the severe Seasons, which impregnates the Grass with flashy, raw, earthy Qualities: Therefore also be sure to fold them late at Night, and unfold them late in the Morning, first stirring and driving them about the Pen briskly; for, by this, the Sun will have Time to exhale the destructive Vapours of the Earth, which in this Month, as they are plentifully converted into Dews, are apt to breed Cobwebs and Insects of a poisonous Nature, which often prove the Bane of Sheep: For which Reason carefully drive them first over the Place they are that Morning to feed on, in order to trample on and destroy those Cobwebs and Insects, and likewise to breathe the Sheep, and thus cause them to evacuate their ill Humours through the Pores of their spongy Skins, which will be a great Means to prevent the red Water. This Dressing by the Fold is, undoubtedly, the best and most universal of all others; because it agrees both with Vale and *Chilturn*

Lands,

Lands,
is to be
Sort of
Chalks,
ceive t
Dung,
flat, w
swer o
Ground
Turner
their t
ment,
falling
devour
Manag
the Sh
the ne
materi
necicia
where
have
the le
been f
fold t
are ve
new-f
Beasts
Purpo
made
Creat
Matte
on th
and
stolch
Char
so do
and

Lands, and may be had when others can't; but it is to be observed that it does more good on some Sort of Ground, than on others: Loams, Gravel, Chalks, Sands, and other light, dry Earths, receive the greatest Benefit from their unctuous Dung, Urine, warm Bodies and Treads; but, on flat, wet Loams, and cold Clays, it does not answer quite so well. Folding is excellent on Ground preparatory for Sowing Wheat, Barley, Turneps, &c. and also after Sowing, not only by their treading in the Seed for its better Nourishment, and keeping the Stalks afterwards from falling down, but likewise to preserve it from the devouring Birds, Slugs, and Worms. But, in this Management, due Care ought to be taken to keep the Sheep off that which has been folded on, lest the new sprouting Blade be bitten off: This is so material a Point, that some object against this beneficial Proceeding, on this very Account; but, where a good Shepherd and a well broke Dog have the Superintendency of this Affair, there is the less Danger of such Damage. The Fold has been found to be so profitable as to tempt some to fold their Hogs, whose Dung, Urine, and Feet are very agreeable both to fallow Ground, and on new-sown Corn, if done in dry Times, and the Beasts are well ringed at their Nose: For this Purpose their Hurdles must be all close and strong made, that they may confine this strong, roving Creature, which has been found so difficult a Matter to do, as to discourage some from carrying on this serviceable Way; however, in Gravels and such hard Grounds where they cannot much stolch, it may very well be worth while to be at the Charge of iron Socket-Stakes, which may be drove so deep into the Earth, as to defy their Strength, and Cunning to get out.

The

The Manure of natural Earth. This certainly is the most genial Dressing of all others, to all Sorts of Roots whatever: It not only procures the largest and sweetest Kitchen Plants, but also brings forward very safely the greatest Crops of Corn, and artificial Grasses, as well as the most healthy and expeditious Growth of Trees. Nothing fertilises any Plant better than Virgin Mould, of whose Nature all Earths have their Share, that have had the Benefits of due Fallowings, by the Plough, or were made fine by the Hough and Break; and then it most effectually supplies Dung, as appears partly in the old, but more especially and fully in the new Husbandry; and to enjoy it in this Condition, as soon as possible, it has racked the Wits of many, to find out the cheapest Methods: In the old Husbandry, the quickest Way in the Fallowing Seasons, in *Chilturn*, loamy Soils, is to plow the last Stubble into Broad-lands, in *April* or *May* at furthest; the next Time, to bout across; the third Time to bout off the last Bouts, and then thorough down, harrow plain, and plow and sow Wheat; this Operation so pulverises the Ground, as to create in it an infinite Number of new Pores, at each successive Plowing, that are by this Means made smaller and smaller; and the lesser these imperceptible Holes are, the more soft and spongy is the Earth's Body, and, by this, the better fitted for the larger Reception of the nutritious Dews; therefore, the oftener, deeper, and longer, such loamy and clayey Soils are plowed, the greater Quantity of nitrous Dew it receives and lodges: Hence it is, that I know a certain Farmer, who rents about a hundred Acres of good inclosed Land in *Hertfordshire*, and dungs but once in six Years, yet has commonly the best Crops of Wheat in the Parish; by Reason he every Summer takes this Method to get his Land into an expeditious

ditions, exquisite, fine Tilth, which, indeed, is much better Husbandry than to dung a coarse Land oftener, which at Sowing-time lies in a rough Tilth. But, as I have before observed, there is an Exception belongs to this Management: For tho' hurlucky Chalks, hungry Sands, rashy Gravels, and lean light Loams are, by frequent Tossings and Tumbings about by the Plough, brought into a closer Body, as Clays and stiff Lands are brought into a lighter, and thereby both the better fitted for receiving and lodging the silky, capillary Roots of Seeds; yet such light Soils will not bear so many repeated Plowings as the stiffer Sorts; because the better Part of these generally consists in a thin Surface, whose mouldy Particles may be too much washed downwards by long and frequent Rains into their hollow, hungry Bottoms, to the great Impoverishment of such Lands: It is on this Account, therefore, that we endeavour to plow these as little as we can, so we do but get them into a fine Tilth; and, for a further Advantage, we take Care to sow the Chalks and Sands in moist Seasons, for their closer Inveloping the Seed, which thus very much secures these loose Earths from the Power of Frosts, Winds, and Wash of Rains, and also for more effectually preventing the easy Growth of Poppy, and other Weeds, and to save the Wheat, Oats, or Barley from falling down. Of this some Farmers are so careful, that, as soon as Wheat is sown in Chalks in four-thoroughed Ridges, they draw a Roll once length-ways over their Tops, to fasten the Ground. However, both light and stiff Soils must be made fine, else the Roots will have the greater Difficulty to penetrate, and be obliged to draw their Nourishment at the further Distance, to their considerable Damage.

L

But

But by houghing Plants, Corn, Grasses, young Hedges, or young Trees, with the Three-wheel, or Pulley-Ploughs, or with Breaks or Houghs, their Roots are kept moist in a constant, fine, loose Mould; for, by this Sort of Management, Roots require less Water than those that grow from Seed sown broad-cast, because such Houghings capacitate the hollow Earth to receive the Dews in a plentiful Manner, and mostly so in the hottest, driest Seasons, whereby the sulphureous and saline Qualities, contained in Dews, nourish the finer Roots to a great Degree: Hence it is, that, the harder the Ground, the less it receives of this noble Sustenance; which is so rich, that no Dung can equalise it, when due Quantities are obtained and rightly applied to Roots of Plants by the Horse-Instruments; which are far more serviceable in these Respects than any of the Hand-Tools, because those can never go so deep, nor turn up the Mould in such a profitable Manner, as the others; Nevertheless, the Hand-hough must not be excluded its Service in these Works; for when the Plough or Break cannot come near enough to the Corn, Grass, young Hedges, and Trees, or when that Part of the Mould is clotty next to them, then the Hand-hough is to be used, to lay the Earth fine and close, and in a right Position, for the due Nourishment of their Stalks and Roots.

Lime. You that have not been so good Husbands as to mix your Dung, Mould, and Lime together before now, do it the Beginning of this Month against Wheat-Season (for at this Time it is rather too late to do it for Turneps) by this you will bring all the Compost into a Fermentation, which, by the Help of the Dung and Lime, will burn up all the Seeds of Weeds, and the small Roots that may be contained in the Mould; all twitch or couch Grass and all four Juices are by this destroyed,

destroye
Body.
River,
or six
Mud;
at least
may be
are som
thus: P
or Hog
they sp
likewise
fit, the
fore, an
at last
Sun fro
lie rath
better
to turn
of Mo
Plowed
October
into, a
alone i
mon V
Ground
rich D
the G
many
Dressin
Chara
Virgin
short P
merate
Month
getting
of it af

destroyed, and the Whole made to run into a fine Body. If you are to mix Lime with only Pond, River, or Ditch Mud, then put one Load, or five or six Quarters of Lime, to ten large Loads of Mud; observe also, that this must be once turned at least before you lay it on for Wheat, that all may be duly incorporated and made fine. There are some Farmers who use Lime in a Dunghill, thus: First they lay a Bottom of Horse, Cow, Ases, or Hog Dung, of two Feet thick, upon which they spread a Covering of Earth two Feet thick likewise; on this they lay what Lime they think fit, then dung their Earth, and then Lime as before, and so on, till they have their Quantity, and at last cover with Turf or Mould, to keep the Sun from drying it too much, letting such a Heap lie rather broad, than high, that they may the better ferment together; and this they never fail to turn once, at least. Lime is so great a Shortener of Mould, that, if it is thrown but thinly on Plowed Land, in Ridges especially, in *September*, *October*, or other Winter Months, it will wash into, and fine it, with the Help of Frosts. Lime alone is used for *French* Wheat, as well as common Wheat, and is also excellent for Meadow-Ground, Turneps, Pease, &c. as being a cool, sweet, rich Dressing, and helps the Corn to kern, hollows the Ground, sweetens the Bite of Grass, and in many Places is made to supply Dungs and other Dressings; but more of this in proper Months.

Chalking Land. This excellent Earth deserves a Character above many others, for its being a pure Virgin Earth, of a sweet Nature, and of drying short Parts: Its Services are too many to be enumerated here, and therefore I intend, in a proper Month, to publish the Methods used by us in getting it out of the Ground, and the Application of it afterwards.

 CHAPTER V.
Of Artificial Grasses, *for the* Month of May.

CLOVER. Whether this is properly a Grass, or Grain, as some have observed, it matters not to the Farmer, who has more Business with experimental Knowledge, than the speculative Part of Botany; therefore we shall not here go beyond our Last, and quarrel with what is out of our Sphere; but let it suffice that, of a foreign Grass, it is now become a most useful, natural one, in *Great-Britain* and *Ireland*, where it has been of prodigious Service these many Years past, in supplying those Farmers with Grass, who having before no Meadow-Land, and could not so much as milk one Cow for their Families, may now carry on a Dairy both of Butter and Cheese, &c. by Means of this and other artificial Grasses, which grow in Plowed-grounds. And as the Profit of a plentiful Crop depends in a great Measure on the Goodness of the Seed, I shall here give you some useful Hints, which may help you in making a right Choice of the true Sort.

How to know good from bad Clover-Seed. The purple Sort of this is that which had its due Maturation in the Field, and an Escape from the Heat and Burning of a damp Mow; and is therefore the right true Seed, which ought always to be coveted, and sown by those who hope for successful Returns from sowing it: This is, truly, that Part which is best of all the three Sorts, and is the Medium of the two Extrems. The white or green Sort is the unripe Part, and missed of that Benefit in the Field, which the Purple had; for in the Ear or Head of this Grass, as well as in Wheat and other Grains, this Seed has its
several

several Aspects and Proportions of Bigness, before it is cut down, and will shew their Differences accordingly after Thrashing and Cleaning: Where then this white or green Sort is in a large Quantity, it is to be rejected; for, though such Seed may take Root and grow, it will prove diminutive Grass, and be sooner overcome by the Frosts and Wets, or Droughts, Worms, &c. than the fine purple Sort. The reddish Sort is the worst of all; though this might be as good as the best, when it was brought out of the Field, but was afterwards too much heated or burned in the Mow, which occasions its reddish Colour, and destroys in a great Measure the vegetative Part of the Seed. From whence I conclude, that, where Clover Seed abounds most with the large purple Sort, it is then so much the more valuable: But, for a further Proof of the Goodness of this Seed, heat a Shovel half red-hot, and put some Seed into it, the good will snap, and the bad will burn away. Kiln-dried Clover-Seed may be discovered by its igneous Smell.

The Manner of its first Growth. It commonly comes up in a Week's Time, if the Weather is favourable, and then it appears with two Leaves and its Seed on its Head; these all rot away in about three Weeks Time, and then the Spear, which shot from the Middle between the two first Leaves, opens itself into three new Leaves, which stand all good. Old Seed is longer taking Root, and its Leaves bitterer than those from new Seed.

To sow Clover-Seed with Success. If it is sown on rough clotty Ground, never harrow it in with Iron-Tines, because this Seed, being very small, will easily be buried in such an uneven Surface, and never come to Perfection, at least great Part of it will in Course be lost: The best Way therefore in such a Case is to draw white or black Thorn-Bushes

Bushes pretty thick through the Sloats of a Gate or Hurdle, and, if there be Occasion, let the same be loaded with a heavy Piece of Wood ; then let a Horse draw it length-ways, and across several Times over such Ground, as soon as the Seed is sown. But, if your Land is in a fine Tilth, then you may be free with your Harrow-Tines, and harrow it in once in a Place, for in such loose Earth there is no great Danger of burying the Seed too deep ; yet there is a fatal Accident sometimes attends even this Management ; and that is, when heavy Rains presently succeed the Sowing of Clover in such fine Mould, the Surface is apt to become what we call *Capped*, or, to be more plain, made to run and wash one Part over the other, and so cake and bind the same, that the Clover Sprout can't make its Way through its crusty Top: In this Case also, the Bush-Gate, or Hurdle is perfectly necessary to be drawn over such Ground, in order to loosen it, and make Way for the seedling Heads to get an easy Passage into the Air. But observe, that this Work must be done before the Leaves appear, else it may prove of very ill Consequence : Observe likewise, that, if such heavy Rains come later than five Days, the Ground will not cap or bind.

A second safe Way to sow Clover to a great Improvement. Before or about *Christmas* at farthest, lay your rotten Dung on your Wheat or Barley Stubbles in the *Chilturn* Fields, and give them a clean Plowing, either in Broad-lands, or four-thoroughed Stitches, which will thus envelope the Dressing, and by the Help of the Winter Weather, help to rot and mix it with the Earth against Sowing-Time ; then, about the middle of *February*, plow it again, and, after it has lain a Month, first harrow it plain, then plow it across, and harrow in your Oats and Clover-Seed. But observe, that I sup-

pose

pose the Soil, to be thus managed is a stiff Ground, either Clay or Loam, otherwise there is no Occasion for three Times plowing it, to get it into a sweet Tilth; for a Gravel, Chalk, or Sand, must not have above two Plowings at most, because these will often do better with one Plowing, than a stiff Earth with two: However, this ought to be received as a general Rule, That all Ground must be made first very fine and sweet, if you expect Success in sowing any Manner of Grass-Seeds. And here it may be asked, Why Oats should be preferable to any other Grain for this Purpose? In Answer to which, the Reasons I think are obvious, as they are a hardy Grain, afford a good Shade, and better able to withstand the Suction of the Clover-Roots; and if the Oats, in a wet Summer, should chance to suffer by them, the Loss will not be so great as in Wheat, or Barley; and, for this Purpose, I chuse the black Oat before the large, white, *Poland* Sort, by Reason the latter is such a vast Peeler or Robber of the Ground, that, when the Crop is got off, the Land is left impoverished, and the Clover sometimes so crippled and stunted, as to yield no more than half a Burthen. It is on this Account that I am for having such Ground well dunged before-hand, not only to hollow it for the better Reception of the Seed, but to nourish the Clover the Year following, as well as to make it produce a very good Crop of Oats: With such Assistance, the Clover will enjoy several Benefits; as getting an early Head in the Spring-Time to shade its Roots against a dry Summer; and, if the second Crop is saved for Seed, it will be larger-bodied, and sooner fit to mow. I am very sensible that the white Oat is chiefly recommended by the learned Mr. *Worlidge*, for this Purpose, as giving a greater Shelter, by its broad Leaves, to the Clover than other Oats; but if you sow (as you ought

ought to do in all stiff Soils) four Bushels of black Oats on one Acre with the Clover Seed, you need fear no Misfortune from that Quarter: I have experienced both Ways, and therefore think I have a Right to know the Difference beyond this Author, who I never understood was a Farmer, or concerned further in the Occupation of Land, than that of a Garden; yet, to do him Justice, I must own, his Essays on Vegetation, &c. have been very serviceable to the World. At this Time, I am feeding my Horses in a Field of Clover, which I obtained after the following Manner.

A third Way. It was on a stiff Soil, that I had a Crop of Wheat grew, and in *November* I plowed up its Stubble, letting it lie till the latter End of *February*, when I plowed the same Ground again, and sowed it with about two Thirds Horsebeans, and one Horn-grey Pease, and twelve Pounds of Clover on an Acre, and it proved a good Crop. Here I observed that Clover does more good than Harm to this Grain, as it helps to shade its Roots against Droughts, and thereby furthers its Growth; nor can the Roots of the Clover damage those of the Pease or Beans, by drawing out the Goodness of the Earth from them, because the latter, being much larger, have certainly the greater Suction from the Earth; yet both contribute to nourish each other, the Beans and Pease by shading the Clover, and the Clover them, and thereby making a Lodgment of the Dews, and retaining them afterwards, to their great Improvement.

A fourth Way. About *Watford*, where they pay twenty Shillings *per* Acre a Year for their Plowed Land, they have such a Regard to the Improvement of this noble Grass, that, after the Barley is carried off, which the Clover was sowed amongst, they get large Quantities of *London Coal-*
Ashes,

Ashes,
veral P
October
before
and by
them't
them fo
sow the
Benefit

The
amongst
custom
or in
by sow
it: So
instead
Howev
pose:
this ea
hurts
makes
which
cially
cates i
than o

A c
sing t
in Apr
by the
he wo
The c
Clove
ter, w
disapp
out f
appea
little,
ter, f
of th

Ashes, and lay them in a few large Heaps in several Parts of a great Field in *September*; then in *October* they turn in those Sheep, which a little before were put into their Stubble-fields to fatten, and by this Opportunity they continue feeding them 'till their Turneps are ready, which compleats them for the Butcher; then, about *Christmas*, they sow their Ashes on the Clover, which gives it those Benefits I have before-mentioned.

The pernicious Effects of sowing Clover too early amongst Wheat. This Seed for many Years has been customarily sown amongst Wheat about *Christmas*, or in some of the following Months till *April*, by sowing it broad-cast, and doing nothing else to it: Some again will draw a Bushed-hurdle over it, instead of the Harrows: Others will roll it in: However, all these Ways are to answer one Purpose: But what I have here to alledge against this early Sowing of it is, that it often spoils or hurts the Wheat-Crop, by the great Suction it makes in Tilths and well dressed Grounds, in which this capital Grain is commonly sown; especially if a wet Summer succeeds, for then it radicates itself with great Expedition, and grows more than ordinary luxuriant.

A certain great Farmer near me, who was praising the fine Appearance his Crop of Wheat made in *April*, to an old judicious Neighbour, was told by the latter, shaking his Head, that he believed he would be of another Mind before Harvest: The other asked him Why? Because, *says he*, the Clover you have just sown amongst it, in the Winter, will very likely cripple it by that Time, and disappoint your Hopes: And accordingly it fell out so to his great Disadvantage: And this will appear no Wonder, if a Person does but reflect a little, and consult his own Reason upon the Matter, for it is plain to the Farmer, that the Roots of the Wheat, composed of small Fibres, as it

were in a Bunch, get their Living very near the Surface of the Earth, which the Clover must also do in its first Summer's Growth; and though its Seed is about one twentieth Part smaller than a Grain of Wheat, yet its Root is twenty Times bigger the second Year, than that of Wheat, which in my humble Opinion plainly accounts for the Damage. As therefore I have cautioned my Reader, in last Month, against the Mischief Clove does, if sown too soon among Barley, I here likewise do the same in Relation to Wheat: To prevent which, if you have not sown it in *March* or *April*, the very Beginning of this Month, sow fourteen Pounds of Clover-Seed on one Acre; and thus you are not in so much Danger of suffering by Frosts as before, nor, it is to be hoped, by great Rains, which are apt to kill the Clover as it is chipping and making its Way out of the Hull or Shell. The Winds and Sun are also now less capable of hurting it, by the high Growth the Wheat is at in this Month, which thereby keeps the Ground moist, and hollows it ready for the Reception of this small Seed. It likewise intitles the Farmer to this Benefit, that whereas, there being now not three Months to Harvest, the Clover has not Time to be any Ways destructive to the Wheat. These are experienced Cases, which were never before published: On the Contrary, a certain late Writer, on Husbandry, peremptorily affirms several Matters concerning this very useful Vegetable, which are intirely erroneous; I shall here mention but two, and they are as follow:

A printed Error relating to Clover. The aforesaid Author affirms, that a Field of Clover will hold good five or six Years: Now, how wrong this is, every Farmer must be sensible of, who has had but small Experience in this Matter. I think I may presume to say, I am allowed by my Neighbours,

to have as good Fortune in Crops of this Grass, as any about me, having at this Time five Fields under Growth of it; and yet I could never find that Clover ever paid above two Years, whether mowed or fed.

A second Error. He likewise asserts, that, after Clover has been done with, the Ground will bear Crops of Wheat for two or three Years together, and after that a Crop of Oats, without any Manure. This is fine Ground indeed, such as I never met with in all my Travels; and yet I have several good loamy Fields, that would let for twenty Shillings an Acre a Year, for the Plough; but could never find that it would produce me a plentiful Crop of Wheat or Barley, even the first Year, without the Assistance of the Fold, Dung, Soot, or some other Manure. However, there must be Allowance given for writing on Agriculture in a London Chamber; because all the Philosophy, that it can furnish, will never come up to the Information of Field Experiments.

The new Method of making Clover Hay. The latter End of this Month, or the Beginning of June, Clover is fit for Mowing, and known by its being full knotted and red-headed; and it is then you should begin this Work, for there is a Crisis of Time to be observed in this, as well as for natural Grasses. If you mow it too soon, it will shrink and lose in Quantity; and, if it stands too long, you will be deprived of its best Quality, the Sap; and then consequently it will be very coarse, and want much of its due Value. My Way of making it is thus: After it has lain a Day or two in the Swarths as it was mown, the next Time I remove its first Situation, by turning the Swarths, and letting it lie so another Day; then I put it in Grass Cocks in Rows, that the Ground between them may be regularly raked; then I afterwards

turn them with the Fork topsy-turvy twice a Day; 'till the Hay is intirely made. By this Method you will have it in its due Perfection of Colour and Sweetness with the Leaves on; but you must not expect this latter Benefit, if you make this Hay after the common Way of throwing and spreading it several Times, as is done in making the natural Sort; because then it would be deprived of its leafy and second best principal Part. In the next Place, when you inn it, and it should happen to be wet Weather, or that you mistrust a Dampness in it, put a Tub, Basket, or hollow Square made of four narrow Boards four or six Feet long nailed together, and placed in the Middle of the Cock, or Stack of Hay abroad, or in the Mow in the Barn, pulling it up higher as the Cock, Stack, or Mow fills in; and thus you will not only prevent its Firing, but keep it sweet; and indeed it is a good Way to use this Method always, let the Hay be ever so dry, because it gives an Evacuation to all Moisture, and tends very much to the Preservation of its green Colour. If you intend the second Crop for Seed, do not feed it after the first Mowing.

The Nature of Trefoil, and making it into Hay. This yellow-flowered Grass, if the Spring is not very backward, we commonly mow in this Month, or the Beginning of next, either when it grows alone, or with Clover and Ray-grass: If in the latter Way and it is fed, it prevents the Clover from hoving the Cattle: If for Hay, it tends very much to the Improvement of the other two, for this will twist and wind about the Clover, and help to keep its Leaves on, when it is made into Hay; so likewise is the Clover no less serviceable in its Place, for, if you thrash the Trefoil and Ray-grass with the Clover for Seed in the Field or Barn, the first two will presently yield their
Seed,

Seed,
with
their
Clover
foil f
as I
Seed
prefer
never
is m
much
tening
Grass
and H
lowif
ties i
summ
flow,
when
This
feren
plow
with
of h
than
if yo
it is
Fold
likew
well
serve
Whe
ther
dun
Farn
black
Met
that

Seed, when the latter will retain it, and thereby, with its brown Honey-suckle Head, so improve their Stalks, as to make them the better Hay or Clover. Observe also that whether you mow Trefoil for Seed or Hay, it is best made in Grass Cocks, as I have before directed for Clover; because its Seed (which it most easily parts with) is better preserved; and it is for this Reason Trefoil should never be fully ripe, when it is mown; and, when it is mowed alone, this Grass does not require so much Making as other Grasses. It is a very fattening Hay for all Sorts of Cattle, and so is its Grass; and in particular very serviceable to Cows and Ewes in producing a great Deal of sweet, yellowish Milk and Butter; for which good Qualities it is by some called *None such*: But after *Midsummer*, or the first Crop is off, it grows very slow, and makes but a small Return, and is apt, when grown old, to make the Butter bitterish. This Trefoil has likewise a singular Quality different from all others, for, if you mow it, and plow the same Ground several Times, and sow it with Corn, it very rarely happens, that you miss of having a thicker Crop the Summer following, than when you first sowed the Trefoil Seed; but, if you plow only once before you sow the Grain, it is a great Chance if you don't intirely destroy it. Folding Sheep after the Ground is plowed will likewise prevent the Regrowth of the Trefoil, as well as only one Plowing: And, if this is not so served, it is very apt to spoil the succeeding Crop of Wheat by its luxuriant Growth, especially where there is a good Tilth made, and the Ground well dunged. And here I must praise out *Hertfordshire* Farmer for his discreet Sowing of this Seed in its black Hull, as well as discommend the common Method of sowing it naked; for Experience shews that the outward Coat or Hull secures it very much

much against the Rigour of Frosts, Wets, Winds, and Slugs, inasmuch as it will withstand a whole Winter's and Summer's Revolution of Weather under several Plowings, and yet remain unhurt. In the common Way, Trefoil-grass lasts but two Years, hollows Ground much, and will shoot two or three Times in a wet Summer; but, in a dry one, little more than one full Crop. It will grow on a rough Tilth, and not hurt the Oats which it is sowed amongst; because the Ground, not being manured for this Grain, prevents the Trefoil from doing the Mischief.

The Nature of St. Foyne, and making it into Hay. This red-headed serviceable Grass is rarely fit to mow for Hay in this Month, but in *June* at farthest, and in *June* or *July* for Seed: If for Hay, the next Day we turn two Swarths Head to Head, and rake between the Rows; the Day following we put it into little Grass-cocks, and turn them twice a Day till made enough. Others again, in making this Hay, follow the same Method as they do in making natural Hay. But if this, or Trefoil, or Ray-grass, is much tost or tumbled about, when it is mowed for Seed, it will be very subject to shed and lose a considerable Deal. This *St. Foyne* Hay is so nourishing, that draught Horses may work under it alone, and will also keep them in good Case without any other Feed. It is always a sure Crop, even in the driest Seasons; and, when natural Grass is burnt up, this will be a vast Burthen and yield sometimes three Loads on an Acre, which we commonly sell for twenty-five Shillings a Load out of the Field. Now when it happens that *St. Foyne*, Clover, Trefoil, Ray-grass, or Lucern is got in dampish, some, besides the Use of the Tub or long Square that I have before-mentioned, will put Straw between the Layers of Hay as it is mowing in the Barn, or in

in a C
Chaff,
vent i
attend
such S
ever, c
on Ac
fitter
appear
it, for
Heart

Luc
of lat
in its
tion;
have
stiff
Yet a
it tha
Inche
this it
three
before
Years
Year
last w
ned
ral G
at be
in th
done
ing C
or S
they
serva
prosp
Bott
Eart.

in a Cock or Stack abroad, or, instead of that, Chaff, in order to absorb the Humidity, and prevent its Firing; but then there is an Inconveniency attending it, because, if the Hay is to be fold, such Stuff will be apt to hinder its Value; however, of the two Evils, Chaff does the least Harm, on Account of its small Body, which makes it the fitter to eat with the Hay. When the red Head appears, mow this Grass, while the full Sap is in it, for, if it stands, till it is full ripe, the Sap and Heart will be spent.

Lucern, its Nature and Hay. This Grass, which of late has employed the Pen of certain Authors in its Praise, seems now to decline in its Reputation; because not only myself, but many others have tried to get full Crops of it in our Clays, stiff Loams and Gravels, but without Success. Yet a Gentleman near me sowed a whole Field of it that had a loamy Surface, of about eighteen Inches Staple, under which was a red Clay; in this it grew, and in the third Year he mowed it three Times in one Summer, but could never do so before or afterwards, though he dressed it three Years together directly after Sowing: The first Year was with Dung, next with Lime, and the last with Ashes; but after the third Year it declined so much, that in about five Years the natural Grass got up and spoiled most of it. Besides, at best, it makes but a coarse Hay, which we cure in the Field, in the same Manner Clover-Hay is done; nor is it much less free from the fatal hoving Quality, than Clover is, for, if you turn Cows or Sheep into a Field of either of these Grasses, they are liable to be killed by it: And by the Observations I have made of it, I think it will not prosper in any Ground that has a stiff or hard Bottom; but in loose Sands, and in hollow moorish Earths, where its long piky Roots can make a deep
and

and easy Penetration, it will do well, according to the Proofs I have known made of it in a sandy Soil in *Norfolk*, and in a moorish Ground elsewhere : Which latter Case I intend to publish in a proper Month.

Of Artificial Grasses in general, and their Hay. That St. *Foyne* and Clover which was sown together the first Year among Barley or other Corn, in order to have a full Crop of both the Year following, the latter End of *May* is to be mowed and made together. This is a late Improvement, and we find that each Grass assists the other in their Growth by the Shade of their Roots, till the Clover is worn out, and the St. *Foyne* then grows intirely alone. But when Clover, Trefoil, and Ray-grass are sown together (as they often are) they then make the better Hay, and will last good two Years, if in the last you manure it with Ashes, Lime, or rotten Dung ; for in three Years the Trefoil and Ray-grass will get the Ascendant of the Clover, and cause but little of it to appear. Clover also is a Grass which suffers very much by the Bite of Sheep, because they cut its succulent Stalks so close with their narrow Mouths, that, in this and the other Summer Months, they make them bleed or run out their Sap too plentifully, and so damage both the first and second Crop of it. In this Month you must determine whether you will save your second Crop of Clover for Seed ; for then, as I said before, it must not be fed. Some, by thus saving the Seed, have got a considerable Profit by it ; but I knew a Farmer, that, after he had saved one Crop of Seed, would never do so again, alledging these Reasons for it, that, after once or twice Feeding, the Horses would eat no more of its Stover, but would sooner starve than feed on its hollow husky Stalks ; likewise the great Charge of thrashing it (for he had not the Conveniency of

of Milling it) proved another Discouragement; so that he judged no Way so advantageous as feeding it, or making it into Hay, for then it sometimes yields three Loads off an Acre, as I experienced in one of my Fields in the Summer 1735, at twice mowing it; and, whenever you make Hay of Clover, it requires your Patience that you may not hurry it in too soon, before it is made enough; for this Grass, rather more than others, is very subject to a great Sweat in the Mow, when innd in the best Manner, by Reason of the large Quantity of Sap contained in its succulent Stalks. My next Neighbour was from *Monday* to *Saturday* making a Field of Clover-Hay, and then inning it, for Fear of its taking more Wet than it had; the Hay heated to that Degree, as made him throw ten Loads away for Dung: Whereas, had he waited till the *Monday* following, he had saved all by the Clemency of the Weather; however, he said he would trust Providence better next Time, for it is far more preferable to spoil it in the Field than in the Barn. *N. B.* Clover may be sown in this Month with blue Pease, or any other of the forward Sorts, because they do not continue on the Ground long enough to choak the Clover; but it will not do right, with *Windsor*-Grey, Horn-Grey, Maple, or the *Popular*-pea, or any other of the latter Sorts, because they are apt to choak the Clover, or the Clover them. And remember, that one Year's Clover sours Ground, two sweeten it, Clover hollows Ground, but Ray-grass fastens, and sours stiff Land.

The Excellency of the Lady Finger-Grass. This is a true natural Sort, that grows in my Upland-Meadows, on a loamy Surface, of about twelve Inches deep, under which is a red Clay of ten Feet Depth, and under that a Chalk, and is justly esteemed the best of Grass. Its Blossom is a yellow Flower, and blows in this or next Month, much like that of a Furz or Whin, comes up with three

N

Leaves

Leaves with Trefoil, carries three Branches on each Stalk, grows about eighteen Inches high, and, when ripe, is loaded with many small Kidds, with certain Numbers of little Seeds near as big as a Till, and therefore is both Hay and Corn; and, being the sweetest of Grass, the Cattle eat it very greedily, which makes it, in the highest Perfection, the most proper Hay for feeding Saddle-Horses, Deer, Sheep, and Rabbits, in the Winter Seasons, because they'll not only eat it with Pleasure, but it warms, dries, strengthens, and fats them sooner than all others. Wherefore, I recommend this particular Vegetable to the Notice and Enquiry of the Virtuoso's of the Age; and, where Ability accompanies an improving Genius, this hitherto neglected Grass may be obtained, by having its Seed gathered in next Month, clear of all other Seeds, and sowed intire in moist or dry Loams or Gravels, and even in moorish Grounds; and, if it take well, there is no Doubt, but that it will, in a ten-fold Manner, compensate the extraordinary Charge that must attend its Gathering, by Reason the Tread of the Collectors will consequently damage, if not spoil the rest of the Grass-Crop. It is here I propose the Improvement of a true *British* Grass, and not a Foreign Sort, and humbly take Leave to be so far an Advocate for its Improvement, as to say there has been no Exotic Grass-Seed ever yet imported, that is near so fine and serviceable as this native delicate Sort. I have lately tried Spurry-Seed, which some Seedsmen would fain impose on the Public for a Grass exceeding all others, and so in my Opinion it does (what I have experienced of it) for its worthless Nature. But here I publish one that has been approved of Time out of Mind by our Farmers, &c. who one and all allow its superior Goodness in answering those great Ends I here write of, and yet I can justly further enlarge on its transcendent

dent Properties, by telling you it is most serviceable for keeping Sheep from Rotting in wet seasons, and for inviting young Deer, Lambs, and other nice tender Beasts, to eat it greedily in frosty and snowy Weather, to the Saving of many of their Lives. Hence, then, may be supposed the great Benefits that consequently may be enjoyed by sowing this hardy luscious Grass-Seed in Parks, and other Places, instead of the harsh Ray-Grass, which I have known done in several such Inclosures, and which, indeed, affords an early good Seed in the Spring-time; but, after the first Head is eat off, or when Midsummer is past, it grows harsh and stubbed, so that then no Cattle care to eat it; and, the older it is in Growth, the coarser and worse it proves. Whereas this Lady Finger-Grass holds good all Summer, and Winter likewise, if it happen to be a mild one. I have heard of a Gentleman, that sowed intire Plantain-seed in a distant County from me, but what the Result was, I know not; however, I have Reason to believe, it did not answer his Purpose, because it can't be made to grow in so close a Manner, as to enjoy a great Bulk of it in a little Compass of Ground, on Account of its spreading Bottom-Leaves, that clear all Grass and Weeds about its single Stalk, for two or three Inches round. But, how much it is worth while to sow its Seed for for its medicinal Qualities, I leave to the more learned Naturalist; yet I could wish I had less of it in some of my Ground, that abounds in a plentiful Degree with this Lady Finger-grass, which I annually sell to one particular Gentleman for feeding his Deer. If therefore any Person thinks fit to propagate this profitable Grass-Seed, they are welcome first to come and see it grow in this or next Month, and have it gathered and rubbed out for transporting it to any Part, or, on due Notice and Encouragement, they may have it sent them. But,

for the Account of making natural Hay, and many other curious Matters relating to the same that were never yet published by any Author, I refer you to my next Month of *June*, where I treat of them in a very ample Manner.

How a Crop of Clover may be had the same Year.
If a Person is in Necessity to have a Crop of Clover the same Summer, he possibly may have a plentiful one to mow by the Beginning of *June*, if he sows his Seed on a fine tilled Earth, that is in good Heart in the Months of *February* or *March*; provided he sows all over the same, as soon as the Seed is in the Ground, eight Bushels of *Newbury* or *Hempstead* Peat-Ashes on one Acre, and there happen to fall sufficient Rains afterwards in due Time: Or if, instead of the Ashes, he sows fifteen Bushels of Soot, and have the Benefit of seasonable Showers, he need not fear Clover enough the same Summer.

C H A P.

T
in the
cern, b
when
I mak
full of
of my
into C
Beau
ture, v
an An
ver; a
Bodies
sure,
consta
which
tles in
High-
but, b
Gun-p
a Hon
Th
best C
deal o
some
will n
their
don/bi
Sort
the ha
expec
more

C H A P. VI.

Of Bulls, Cows, and Calves.

TO prevent Cows Hoving in Clover, and to cure them. This is the most dangerous Month in the whole Year to hove Cows in Clover and Lucern, because of their first Going into these Grasses, when they are in their greatest Vigour of Youth. I make no more to do, than to fill an Egg-shell full of Tar, and force it down the Throat of each of my Cows, just before I turn them the first Time into Clover, and it never failed my Expectation: Because the Tar, being of a hot, glutinous Nature, will lie some Time in their Bodies, and prove an Antidote against the Wind of a Belliful of Clover; and when this Grass has passed through their Bodies a few Times, the Danger, in a great Measure, is over for that Year, provided the Cows be constantly kept on this Grass. A poor Man's Cow, which he had brought up from a Calf, to eat Nettles in this Month 1741, eat so many in the High-way, that she was hove and ready to fall; but, by giving her Half a Pint of Gin, in as much Gun-powder as would lie on a Half-Crown out of a Horn, she was presently cured.

The *Essex*-men are allowed to be the nicest and best Calf-sucklers of all others, and that with a great deal of Reason, for, even in the Choice of a Bull, some of them are so curious, that they sometimes will ride about fifty Miles an End to buy one, to their Mind, and accordingly travel into *Huntingdonshire*, and other Places, to obtain the right Sort at Fairs there: For on this Choice depends the having of white Veal, and then the Seller may expect, at a brisk Market, five Shillings in twenty more than for one of the redder Sort of Flesh, which

which always meet with a low Market. The Marks then of such a Bull are as follows :

The Marks of a Bull to get white Calf's Flesh. Chuse one that is thin of Flesh before, pale, yellowish, or dun-coloured, Finch-backed, white-bellied, brown-muzzled, his Head longish, his Eyes yellow or whitish, full, ready to start out of his Head, with pale-coloured Eye-lids, and Ears so within-side, one or two Years old, and not too large. But a black Bull, with a brown List along his Back, likewise a deep red Bull are commonly reckoned bad for Breeding by, and more if they have black Eyes. About *London* they formerly bought a Bull at two Years old for about fifty Shillings; and, after using him one Year, they fatted and sold him for five or six Pounds; or, if at three Years old, he be gelt and made a Bull-Stag, he will be fatted in a Year, and sell for six or seven, if he is a large one. On *May-Day* I bought a two Year old Bull at *Windslow* Fair for a curious Gentleman, and, after the Bull had served his Cows all the Summer, he killed him fat out of his Ground in *Aylisbury-Vale* at *Michaelmas* following ; for though some may keep him till he is more than three Years, yet it is rare, for, when a Bull comes to be four, he is heavy and sluggish, and then some geld him for Feeding and Fattening him ; or, if he is drawn a Year or two after it, and then fatted, they will make the better Beef, hardly to be distinguished from that of an Ox. The old Verse says,

*He, that will have his Farm full,
Must keep an old Cock and a young Bull.*

Of this I shall be more particular in my next Month.

How particular Soils contribute to make Calf's Flesh white. On *Gaddeſden-Hill*, which contains many
flat

flat Fields, whose Surfaces are a good Hasle Loam about eighteen Inches deep, as I said before, we seldom have a white-fleshed Calf; yet about four Miles Distance, and also a Mile and a half from me, in *Buckinghamshire*, on their whitish, on their gravelly, and on their marly blackish Loams they seldom fail of having them of a right Colour. Likewise, about seven Miles another Way in *Bedfordshire*, on their reddish sandy Grounds, they generally turn out with a reddish Flesh.

The Marks of a good Cow. On this depends a great deal of Judgment, and is so necessary to be known, that, without such Skill, a Man goes to Market with a great Chance of laying out his Money very ill; for, if he is not very acute, I am sure most of the Sellers are, and to look through the Eye, and speak by the Tongue of another, is a Risque that many would avoid, but cannot, by Reason of their Ignorance; therefore take the following Hints: Buy one that is Taper-headed, thin-necked, well shouldered, short-legged, red-coloured, if of the large Sort; but, if of the small Sort, then the black *Welsh* or *Scotch* Cow is best (according to my Account in *June*;) let her be thin-skinned, yellow, and thin-horned, her Bag linge, round, and thin-leathered, well chambered before, and her Teats not too large. Feel if her Milk-vein is large, if it is, she commonly gives a great deal of Milk; a good Cow goes with Calf nine Months, and may go to Bull again in the tenth. A deep-bodied Cow is reckoned not so good a Milker as the more rounder-bodied, because much of the Meat is expended in nourishing such a deep large Body.

Marks to chuse a suckling Calf by, and its first Management. Those who carry on this Suckling Business to Advantage, besides the Calves of their own Fattening, must buy others to supply their Room
when

when sold off. Now the greatest Market for this Purpose, within forty Miles of *London*, is *Leighton-Buzzard* in *Bedfordshire*, that lies seven from *Gad-desden*, which furnishes such Choice of these Creatures, that many of them are carried from thence into *Essex*, to fatten them for the *London* Butcher. And there is a considerable Advantage depending on buying those who are most likely to thrive fast, and die white: Take Care that it be of a pale red Colour, well shanked, and well loined, with a brown or mealy Muzzle, and a whitish Gum; his Barbs, which are like so many Prickles within-side the Jaw-Skin of each Side its Mouth, must be very white and short, his Eyes hable-coloured, with a whitish Circle about them, and a small Rat-tail. But refuse a black-eyed one, with black Hairs about it, that has a black Muzzle, a red Gum, long coarse barbed, with a narrow Loin, small-boned, and a thin lank Body, all which are reckoned as so many bad Signs, that he will not prove a kind one. The Heifer's Calf generally makes the whitest Veal, and, if fat, is preferred by the Butcher at seven or eight Weeks old, but is commonly of the smallest Sort. Some will chuse large Calves to suckle, when others more judiciously refuse them, because they require a great deal of Milk, which if you have not Plenty of, they will run into Bone, rather than Flesh. The Bull Calves, for the most Part, are larger than the Cow Calves, but the Cow Sort frequently die whiter than the Bull Sort. In the Vale Grounds, where they calve Cows in the Fields, they commonly let the Calf go with the Cow a Week or two, before they sell it, and by this it becomes fitter for driving along the Road, than one that is kept in the House, which requires a great deal of Trouble to make it travel ten or twelve Miles a Day as the Drovers commonly do others. Therefore examine the Navel-String; and

and, if it is green and tender, the Calf is lately fell; for this will not drop off till it is nine Days old, or more. Give the Calf (if it is very young) one Teat the first Week, two the next, and all the third or fourth Week; and then, if your Milk is short, and you are obliged to cram, let it be once a Day, and only with two Crams at a Time, increasing to three or four at a Time, twice a Day; so likewise mix but a little of the Anniseed-water at first, and augment the Quantity, as the Calf grows older. The Crams are generally given an Hour before Suckling. If you are to chuse a Calf to wean, do not let it be a Heifer's, for it will make but a little Cow; but such a Calf will wrinkle one or two Years later in the Horn, than one from an older Cow.

To make Calves Flesh white by Art, &c. To bleed Calves often (as is too commonly done) is wrong; because it takes them off their Food, makes their Flesh eat dry, and not so sweet as otherwise it would be. Some Men seldom bleed above twice, once about six Weeks old, and at about a Month's End afterwards. Bleeding, indeed, clears the Fat, and adds something to its Colour, but not to the Flesh; yet, to improve this in *Essex*, I observed, they have very compact Cow and Calf-houses: For the first, they make them stand Tail to Tail, with an Interval of about four Feet, for the Men to pass and repass, and, at their Heads, they have square Pieces of Timber erected, with a Place to fasten their Heads in, by a Catch of Wood, that slips in at Top. On one Side of each Standing for three or four Cows, there is a square Place for three or more loose Calves to lie on Wheat-straw, laid on Boards, which have several Holes in them, to discharge their Urine into a large hollow Place underneath them. In this same square Place is a Rack, with large Chalk-stones for them to lick and eat at Pleasure. Here also is a Trough set before the Calves, with

Barley-meat, mixed with a little Salt, for their Improvement. Others mix powdered Chalk, Wheat-flour, and Oatmeal. Others give white Oats, or yellow slit Pease. But, if Milk happen to be scarce, to make it go the further, Cramming was invented, and may be managed with a great deal of Success, if rightly ordered. To do which, mix fine Wheat-flour, powdered Chalk, Milk, and the best Anniseed-water, which is far better than Gin, or common Spirits. Others will mix *Scotch* Oatmeal, sifted fine, with Milk only, and give it in small Balls four at a Time, dipped in Milk, an Hour before Suckling. Some, again, will give these an Hour after Suckling, with a few Spoonfuls of Milk after each Cram or Ball. And about *Beau-Brickbill* in *Bedfordshire*, which produces Fullers-earth, of late they have found, that this Earth, given in a Rack to sucking Calves, nourishes and whitens their Flesh more than Chalk. In *Hertfordshire*, it is the general Opinion, that, if Hay is given them in a Rack, it will cause the Calves Flesh to be red; yet I heard an old experienced *Essex*-man aver the contrary, alledging, that they may as well eat this, as the Wheat-straw they lie on. But it is certain, that, if the Cows feed on Grains, Tills, or Thetches, their Flesh will look red: Or, if the Calf is permitted to lick the Ground, Wall, or Boards about him, it will have the same Effect: The *Essex*-men never cram till three or four Weeks old, and seldom that but in Winter, when Milk is scarce; some of whom are so nice to make a Calf look white, that they bleed him in the last Week twice: But if his Barbs, Teeth, Gums, and Eyes appear white enough, they bleed him only once in that Time, and that is commonly the Day before they have the Calf to *Smithfield*-market. But, with these Artifices to save Milk and fatten (for it is the Opinion of many, that it makes the Flesh worse, than if all Milk is given)

the

the Calves must be sure to lie dry, as I have observed, or on a Foundation of Faggots, and then duly supplied, twice a Day, with Wheat-straw, else they will be lousy and suffer. Others pretend, that it is best keeping Calves between two little Cocks of Straw in Winter, to make them sweat, believing this Way forwards their Fattening; but this is not the Opinion of many. In mine, it rather retards their Thriving, by weakening them; however, this should be observed, that, where a Number of these Calves are suckled, there should be two, if not three Calf-houses, that the Eldest and Youngest may have their proper Opportunities of enjoying their Share of Milk, in Proportion to their Age and Bigness. Before I conclude this Article, I shall add the following Receipt for making Crams:— Take the Flour of pale Malt and Chalk in fine Powder, of each equal Parts; mix both (with a very little Salt, or without it) Wheat-flour and Brandy, or Gin, or Anniseed-water, into the Consistence of Paste, or Dough; of which give three Crams, dipped in Milk, an Hour before each Suckling in Winter. But, in Summer, the spirituous Liquor is rather too hot for them, unless it be used in a very small Quantity; which makes some therefore use only pale Malt sifted, Wheat-flour, and Milk, for making Crams; and, by accustoming the Calf to this Food, he will voluntarily take the Cram off the End of a Stick. In *Hampshire*, a Farmer let his suckling Calves lie Abroad under Cover, and made the fattest Calves of any, as believing Sweating hindered their Fattening, and that artificial Food likewise prevented their Fattening on the Kidnies. Another Farmer, when he has his Calves to *Smithfield*, makes up a Dough with Claret and Wheat-flour; and, if there be Occasion, he gives three or four Crams, or more to the Calf, to keep it from sinking, and hinder it from scouring. And the Butcher, to make it die

the whiter, commonly fasts it a Night before he kills it, for Reasons I shall shew in my next Month, where I shall treat on this Subject in a Manner that never was done before, by exposing many new and profitable Secrets relating to Calves.

Of Weaning Calves. In this or the proceeding Month, I buy my suckling Calves at *Leighton*, for five or six Shillings a-piece, about a Week old, to wean; for, the younger the better, because they will take the Finger the sooner: However, at first they must be suckled a little, and by Degrees used to a flat Tub, or Bowl, wherein some Milk, has been put, and the Head of the Calf forced to it with a Finger in its Mouth; and, when it has been used a Day or two to it, nail a Bit of Leather in the Middle of the Tub, to stand upright, in Imitation of a Dug; which in a little Time it will take and nibble, and suck itself. Then, in a Week or two after, you may mix Water with the Milk, letting it have good Grazing all the while; and in about six Weeks, or two Months, it will be weaned, and live altogether on Grass, with little or no Water, unless it be a very hot dry Summer, and short Grass. In the Winter following, it will be good Husbandry to let it have Hay in hard Weather; because good Keeping the first Year is the Way to have them a Year forwarder, than those kept on Straw: So a Calf, weaned in *April*, will wrinkle on the Horn, a Year sooner than one weaned late in Summer, and take Bull a Year sooner. But, in Case you wean a Calf to keep for a Bull, take especial Care that none of the People learn him to be vicious; which too many of the younger Sort are very apt to do, by daring him with their Hats, and teasing him with several Postures, which teaches him old Tricks in his Youth, that they are apt too soon to acquire by their own savage Nature; therefore, in Case you breed him, part with him at three Years old, or four at the furthest. Or, if you buy one

in,

in, let it be at one, or two Years old at most, for Fear the like Catastrophe should happen, which befel a poor Man, whose Name was *William Nore*, of *Ivinghoe* in *Bucks*, who, being engaged as a Month's-man to a Farmer, in the Parish of *Whitchurch*, in the same Country, was sent one Morning to mow Haum, or Stubble; but, it being very foggy Weather, he could not see a Herd-bull, till he was just at him, when he immediately attacked the Man very furiously, and the Man him, till he fought him so long, as to bend his Scythe; at which Time, an accidental Person, coming by, made to the Man's Assistance; but the Bull, leaving the first, pursued the other Man, till, by outrunning him, he got safe into the Village, and raised the People, who when they came to the poor Man, he declared that, to the best of his Knowledge, he had fought the Bull two Hours; but, being miserably bruised by him, expired in a little Time after, and was buried at *Ivinghoe*, the Twenty-first of *September*, 1735, for which, as I was informed, the Parish was fined. And, about the same Time, there was another Person gored to Death by a Bull, at *Stamford* in *Lincolnshire*; and a third, mentioned in my next Month, with two particular Cases relating to the same. But to return to my Subject: Do not house the Calf the first Winter, only keep it in an open Place, just to secure its Body from the Wet, and go in and out at Pleasure; where, if to Hay you add now and then some Beans and Oats, or both, or other dry Meat, they won't be lost, as may be proved by feeding one all the Winter with Straw, and then it will be a great Chance, if it is not lousy, scabby, and stunted, as I have seen done. And if you perceive the Calf to suck, or eat, with Difficulty, search the Mouth; and if there be any Blisters, cut them with Scissars, and then rub the Part with Bay-salt and Juice of Garlic mixed. The public Road, from *Leighton* to
London,

London, joins some of my Fields, by which Drovers of Cows and Calves pass every *Tuesday* for *Smithfield*; and once it happened, that a suckling Calf strayed into my Ground, and lived a Fortnight together, in the Summer-time, on Grass alone, without any Water, till the Owner claimed it; and I have weaned several, that have done well all the hot Season without Water.

The Welch Way of fattening and weaning Calves. They wean the Calf at a Week old, in order to enjoy as much Butter and Cheese, as they possibly can; and to make the most of the Calf, either to fatten for the Butcher, or to wean it. As soon, therefore, as it is taken from the Cow, they stir into a Parcel of skimmed Milk two or three Handfuls of Bean-flour, or, for Change, Oatmeal; which, by the Help of a Finger in the Calf's Mouth, it will greedily suck and drink it in; by which it will receive extraordinary Nourishment, and thrive apace: And thus they save the common Expence of suckling them with the Cow. But to be more particular: When they first wean it, they suckle it with the Finger four or five Times a Day, and lessen by Degrees, till it comes to twice a Day, and the Calf drinks of its own Accord; and this they do for six Weeks, or two Months: Then they sell it for Veal, or turn it to Grass, giving it now and then a little skimmed Milk, or Whey, to drink.

Another Way. The Calf lies on a Stage built high for the Urine to run off; and each Calf is fastened to a Post by a Collar and Swivel, allowing them only a small Length of Cord or Chain. Here they fat them, by putting a little Wad of Hay into Milk as big as one's Thumb; which the Calf will suck himself, else it must be put into his Mouth; and by this Means he will fat for the Butcher: Likewise, at two Months End, he is turned out to Grass for altogether. My next Neighbour weaned two Calves
at

at a Time, at a Week old each, and at three Weeks End he turned them both out to Grass. One had skimmed Milk allowed it every Day, and thrived apace ; the other at the same Time refused it, and fed altogether on Grass, but became very lean ; but, when the former came to be kept only on Grass, he lost Flesh, as much as the other then gained it ; however, they both made good Cows.

To know if a Calf will die white, if only felt in the Dark. On each Side the upper Part of the Tail or Rump in a fat Calf, there are always two Knobs or Bunches of Fat, which the Butcher commonly calls *Duds*. These you are to feel, and, if they are hard, it will die red ; but, if tender, it dies white. A Bull-calf is seldom so fat behind as a Cow-calf. A Calf's Fat lies chiefly at the Bottom of his Shoulder, at the Udder, and at the Duds ; and accordingly the Butcher feels these Parts, to know how fat it is. The thinner the Calf is on the Back and Shoulder, the more fat it has within Side.

Grazing Cows. The very Beginning of this Month, from *Gaddefden*, and many other Places in the *Chilturn* Country, are sent away old Cows, and also Guefs-Cows (which latter are those that did not stand to their Bulling last Year) into the fertile Vale of *Aylesbury*, to fatten in grazing Grounds there at one Shilling or Fifteen-pence a Week, for twenty Weeks ; for here their Turf is so extraordinary rich and sweet, that, if the Grass is ever so short, the Beast seldom misses of getting Fat, so they have Water enough. In this Month both natural and artificial Grasses are in Perfection for feeding Cows ; and therefore, if they were not high enough in *April*, warily turn them into it now ; and remember, that, if it is Clover, the younger it is, the more dangerous it will prove, because it is then most full of Sap and Wind : But, whether it be natural or artificial Grass, always let it be fed in small Parcels, for Change of
Pastur e

Pasture makes fat Calves, and then the Cattle are prevented from spoiling a great deal with their Trampling, enjoy it fresher, and it causes them to give the more Milk, observing it as a constant Rule, to shut up the Field before it is fed bare, that there may be some Shelter left for the Roots, against the scorching Heats; and that the Stalks may be less exposed to Bleeding; or, in plainer Terms, to too great a Loss of their Sap. Observe also, that in *Aylesbury*, and other Vales, it is too common a Practice to croud a Number of Sheep in the same Ground, with the Cows that are sent there to fatten. In this Case, the Owner of such Cows ought to be as wary as the Grazier is covetous, and refuse such a Place, because a Sheep stains Ground the most of any Creature of its Bigness, and is therefore the most disagreeable to the Cow, who hates to feed, wherever it dungs, stales, or leaves its oily Scent by lying on the Ground. Likewise in this Month, we *Chilturn* Farmers, who live near this Vale, whenever we have a good Cow, that at this Time of the Year is gone about half her Time with Calf, and our Keeping is short, we commonly let her out for a small Parcel of Money to a poor Man, who maintains her on his Right of Common, for the Sake of her Milk, till *Michaelmas* following, when she is returned, and becomes a Winter Milch-Beast, that generally is full as profitable as the Summer one, where there is Plenty of Meat. In the next Place, I should give an Account of the Profit of Milch-Cows; but, for Want of Room in this and next Month, I must defer it till *July*.

How two Cows died by ill Management after Calving. In my last Month, I told you, that, if a Handful of Salt was strewed on each Side of a Calf, as soon as it could be done after Calving, the Cow, by licking it, would soon glean: And now I proceeded to inform you, that it has often caused her so

to do in two or three Hours Time, if she is in Heart, as I every Year experience. Then milk her once or twice before the Calf sucks, and give her the Milk to drink. It is a Fault to keep a Cow too well before she calves, for then she is apt to be so firm of Milk, as to endanger her Life; a Neighbour of mine had one in this Manner, that fell and died. Another fleshy Cow calved well, but, upon the Owner's giving her half a Bushel of Grains too soon, stocked her with so much Milk, that she fell and died. This also will be the Effect of cold Water, if given to a Cow that has been kept before in the House, the first Time after Calving; therefore we make it Blood-warm, twice or thrice, and put a Handful of Bran in each Pail. Now, to prevent the like Misfortune, give her dry Meat, a little at a Time, for the first two Days after Calving, to check the Milk, and hinder Danger. But when a Cow is poor, or in middling Order, there is no Occasion for this Sort of Management. However, for a more particular Account of these Matters, I must refer you to my next Month, wherein I shall recite a curious Case, as it happened to a Cow in April, 1736. In the mean Time I shall here add the following Receipts, by Way of Supplement to those mentioned in my former Treatise for April.

A most excellent first Drink to be given a Cow after Calving, to keep her in Health. I know several Sorts of Receipts that have been made Use of on this Account, and which I may mention in their proper Places: But there is none of them, for Cheapness, Readiness, and Efficacy, so valuable as this, which I learned of an eminent Farmer in Somersetshire, where they run chiefly on Dairying; who being a perfect Stranger to me, and, as I was informed, Master of several rare Receipts, which he practised with Success, I could not tell a

better Way to come by some of them, than to talk of some Improvements in Farming, which he liked so well, as to be free with me, and accordingly we exchanged some; and among the rest he communicated this supperlative one to me, which I have since several Times tried, and never found it fail my Purpose, and is as follows: Boil a Pint of Wood-foot in two Quarts of Ale till one Pint is consumed, then add and mix half a Pound of fresh Butter with it, and give it altogether, when near cold, and out of a Horn, to the Cow, and, if there be great Occasion, repeat the same at three Days End.— But my Way is to sweep half a Pint of that Soot as lies over the Oven's Mouth, and boil this Quantity in three Points of strong Beer or Ale, about fifteen Minutes; then add and mix a Quarter of Butter with it, and, when almost cold, put in a Pennyworth of Flour of Brimstone; then let one Man hold the Cow by one Horn, and her Nose, and the other give the whole Drink at several Times out of a Horn, one after another, as fast as she will take it.— This last is what I make Use of, and when any Inflammation in the Bag appears, which commonly is the Fore-runner of that deadly Disease, the Garget, I immediately give the Cow this Drink, and it always makes it, as it were, vanish away. The last Case of this Nature happened to an old Cow of my own, when Word was brought me, her Bag grew hard and very hot, and her Milk stringy, on which I gave her but one Drink, and heard no more Complaint. But this is absolutely necessary to be given to all Cows in general, the third or fourth Day after Calving, by Way of Securing her Health *in futuro*; and so much Stress is laid on this Prevention by most of the *Somersetshire* Dairy-men that they seldom let one Cow miss having it; and, since it has been thus in common Use, they tell me they are never troubled with a

snarled

snarled
arising
so puri
whole
when o
H-dge
low, an
or two
Hogs-l

To m
afterwa
Quarte
of fat
leaves,
little H
when o
counted
not onl
and ren
cause f
with so
after Ca
that Pu
in thre
add a
off, and
boil for
and giv
a Quar
and giv
last to a
ing, ha
came a
Monthl
how to
a Wage
To dr
of this

snarled or inflamed Bag, nor any other Distemper arising from corrupted Blood, for that this Drink so purifies it, as to cause the Cow to give a most wholesome Milk. Thus I have cured my Cows, when one or more Teats have been sucked by the Hedge-Hog, which commonly caused Blood to follow, and a sore Dug. The first went away by one or two Drinks, and the other by anointing with Hogs-lard.

To make a Cow glean well, and keep her in Health afterwards. Take three Pints of Ale at least, a Quarter of a Pound of Currants, the like Weight of fat Bacon minced small, two or three Sprout-leaves, with a little Mint and Sage shred, and a little Handful of Oatmeal. Boil these together, and, when off the Fire, add a little Treacle. This is accounted a famous Receipt to heal a Cow's Body, not only in this Case, but also for restoring her Cud, and removing all Obstructions of the Maw, which cause several Distempers. And as it is a Custom with some to give all their Cows a cleansing Drink after Calving, I recommend this to be a good one for that Purpose. — A second is, to boil some Mugwort in three Pints of Ale, and, when almost cold, add a Pennyworth of Flour of Brimstone, strain off, and give the Liquor warm. A third is, to boil some Cabbage in a Pound of Bacon-Grease, and give it altogether. — A fourth is, to boil a Quart of ground Malt in two Quarts of Ale, and give all warm. A certain Person gave this last to a Cow, which, on the third Day after Calving, had not gleaned; but in five Days after it came away whole. But, in some other of my Monthly Books, I shall discover a Capital Secret, how to make a Cow glean in an Hour's Time for a Wager.

To dry Milch-Cows for Fattening. The Beginning of this Month being the common Time for putting

Cows which are not with Calf into Grazing-grounds to fatten: If they are not dry, dry them directly by bleeding each Cow in the Milk-vein. Others will do it by giving a Cow a Quart of old Verjuice once or twice, and it will make the Milk come away in Bits, and dry her on a sudden; but the Bleeding is most commonly used as the safest Way, because, as this Vein feeds the Milk-bag, the Milk is hereby checked, and that without Danger of a Gangrene ensuing: The Way of performing it is, by the common Phlegm-Instrument that Horses are bled with, and is a much safer Method than cutting off the Teats for this Purpose, as I have known done. Yet, as a better Way than all others, some will bleed the Cow in the Neck well, then anoint her Bag all over with Turpentine and Tar mixed together, and turn her out for good. But the Graziers make no more to do, than to let a Cow go unmilked, four or five Days, till her Bag akes and she mooves to be milked, then three Days after milk again, and three after that, and a Whey and Bits will come and she dry.

The Suffolk Way to make a Cow take Bull. This County, it is well known, abounds with many Dairy-Farms, and is no less famous for their excellent Barrel-Butter, than they are for making the worst of Cheese. When they sell their Firkin-Butter for twenty-five Shillings, they esteem it a topping Market; and as great Numbers of them chiefly trust to a Butter-market for a Livelihood, it more than ordinary concerns them to have their Cows calve at such a seasonable Time, as to enjoy the Grass in its full Perfection, otherwise it would prove a very great Prejudice to the Farmer, if he is obliged to feed dryish Cows on an early Bite. Besides, by having a new milched Beast forward in her Milk, the Owner is enabled to have the Benefit of the first Butter-market; to do which effectually, they have of late

found

found
desired
by the
Quart
out of
to the
The
less k
for its
oblige
Cow.
or Gir
Hours
a Cow
shall t
practi
To j
Month
in Ra
To
Month
Winch
mowed
Rye
it the
give i
to sco
To j
I follo
triving
for the
with n
proper
Clover
in Ra
Dange
Grass
the T

found out a Way to make a Cow take Bull at a desired Time, thus: Let one Man hold the Cow by the Horn and Nose, while another gives her a Quart of strong Ale, or better so much stout Beer, out of a Horn, and in an Hour's Time drive her to the Bull.

The Cheshire Way. This fertile Country is no less known for its famous Cheese, than *Suffolk* is for its Butter; and, for the foregoing Reasons, are obliged to study the Enjoyment of an early Milch-Cow. They therefore give half a Pint of Brandy or Gin at once, out of a Horn, and, at twenty-four Hours End, drive her to the Bull. And, to make a Cow stand to her Bulling, in next Month I shall tell you three several Ways, as they have been practised with Success.

To feed Cows with Ray-grass in Racks. In this Month some mow Ray-grass, and give it to Cows in Racks daily.

To mow it for Hay. The latter End of this Month I saw Ray-grass laid in a chalky Soil near *Winchester* fit to mow. In rich Grounds it has been mowed twice in a Summer.

Rye to be mowed for Cattle. By *Windsor* they mow it the latter End of *April* or Beginning of *May*, to give it to Cows and Horses in Racks. It is good to scour Saddle-Horses.

To feed Cows with Clover out of Racks. This Way I follow myself most Part of the Summer, by contriving to have a near Field sowed with Clover-feed, for then we can mow it daily, and bring it Home with more Ease; a distant Field, therefore, is not proper for this Undertaking; but, when we enjoy Clover out of Home Closes, by giving it to Cows in Racks under Cover, it prevents the common Danger of Hoving, Spoiling great Quantities of Grass by the Tread of their Feet and their Dung; the Torment of Flies, and the too great Heat of
the

the Sun; the Fatigue of driving them to the Field; and the Risque of the Cows breaking into Neighbours Grounds. Instead of which Disasters, that are incident to Cows grazing on Clover in the Field, we obtain great Quantities of Dung at Home, and employ our offal Straw to the best Advantage, large Quantities of Milk, and the Fattening of Beasts at the same Time, in the quickest Manner. Hogs also will feed on the Orts of Clover, as it falls from the Cows Racks, and go a considerable Way in the Subsistence of Store-Swine. One Acre of Clover, fed this Way, is thought to go as far as some fix of natural Grass fed in the common Way, and as far again, at least, as Clover fed with Beasts in the Field.

C H A P. VII.

Of Cheefe.

IT is certain that there is a great Difference in Grounds, in Cattle, in Grasses, and in Management, as they all relate to the making good and bad Cheefe. Some natural Grass will have Cheefe, when others won't, as will most of the artificial Sorts, namely, Clover, Lucern, and Cow-grass, &c. Likewise, there are several Weeds or Herbs of ill Consequence, as Melilot and Crow Garlick, that are such stinking Vegetables, as oblige some Farmers to employ People to pull them up in this Month, to prevent their damaging the Butter, Cheefe, and Corn, which they will be sure to do, where they grow in too great Plenty and are let alone. The Cliver, or Rennet or Curd-wort, has a strong stinking Smell, and is also pernicious in curdling Milk in the Cow's Bag; but they seldom eat it. Long Grass likewise produces a watery Milk, that is much

much fitter to suckle Calves with, than for making Butter or Cheese, because it does not afford so sweet a Milk, nor yield so much Cream as the shorter Honey-Suckle, Lady's-finger, Wild-thetch, and some other of our Meadow Grasses do. But this is not all, the Fault lies sometimes in the Cow; some will give a thin blue Milk, when another will give a thick creamy Sort: However, this is surely true, that, let the Ground, Beast, or Grass, be in their full Perfection, the Cheese may, and is, often spoiled by a bad Housewife, as is annually proved in several of the *Leicestershire* and *Warwickshire* Dairies, where, when they had a good Servant, they had good Cheese, and, when a bad one came in her Room, they had as bad. A Neighbour of mine, who carried on a Butter and Cheese-Dairy, by the Help of Clover that grew on a hilly clayey Soil, used to have a Commodity that sold tolerable well, while his Wife lived, but never after could get a Dairy-maid that was capable of making either of these, from so precarious a Grass as Clover, though he changed several. In *Warwickshire* and *Leicestershire*, of late they sow a great deal of Clover, by which, with the Help of Stover or dry Fodder, they can begin to make Cheese in *April*: But, as Clover and Stover are apt to make hollow rank Cheese, they carefully strive to cure it, by salting the Curd a little the more; and yet, if it is salted too much, it will be dry and unpleasant. Another Way they take to prevent this is to put Water on the Rennet-bag, instead of Whey, and it will much help it. To this I add that necessary Precaution of breaking the Curd well, for this is a principal Matter, because then it will let out the Whey easily, which otherwise, in some Degree, would remain in it, and cause the Cheese to taste rank, and rot soon; for Bits of Curd missing, being broke, will infect the whole Cheese. The common Sort of Cheese, sold in Shops,

Shops, is what they call *New-milk* Cheese, which, to answer the Appellation, should be made with all new Milk ; but this seldom happens, because it is generally made with half skim, and half new ; or what is more properly called *Two-meal* Cheese. Yet there are two worse Sorts than this ; one called *Three-meal* Cheese, that is made with two Parts skim, and one Part new, and the other with all Skim-milk, which latter is made in many Farmers Houses for their own Family Use. I knew a Dairy-man that lived near *Lilly-Hoo*, who, when he sold Butter for five Pence Half-penny *per* Pound, reckoned his true New-milk Cheese to stand him in three Pence Half-penny *per* Pound, and therefore sold his own Cheese to some particular Customers, and bought, for his Family Use, what they called at *Baldock* Fair, *New-milk* Cheese, for two-Pence a Pound. A Gentleman, willing to have the best of Cheese, bespoke one to be made with all Cream ; but he was answered by his Dairy-woman, that there was no such thing to be done, because the Curd would then be too short to work, but that it might be done with half Cream, and half new Milk.

To make Rennet. Good Grass causes a good Rennet-Bag ; that may still be made better, if the Calf sucks about six Hours before it is killed, for then the Curd will be the newer, and the Bag must be got away as soon as can be to be washed and scoured with Salt on both Sides, to make it sweet and white. Then, after the Curd is cleaned and washed, it must be put in again to the Bag, with a Handful or two of Salt, and skewered up to lie in an earthen Pot, close covered in a dry Place. When the Rennet is to be used, put some Salt into a Quart of Water, till it bears an Egg, and boil it ; when cold, put it into the Bag, and let all lie in the Pot again. This Rennet will keep a Month good, and,

and, to about sixteen Gallons of Milk, use two Spoonfuls of this Liquor. If the Milk is cold, it must be made near, but not quite so warm, over the Fire as it came from the Cow, lest it turn the Milk to Curd too quick, and then the Cheese will be tough and hard; but, when they use the Milk directly from the Cow, they don't heat it at all. In very hot Weather, I knew a Man, who kept but four Cows, put all his Milk into one Tub, and immediately, out of a River just by, he took a Bucket of Water and threw it into the Milk, in order to temper it, and make the Curd soft; then he directly mixed his Rennet with it. My Servant takes the following Method: She recruits the Rennet-bag three or four Times a Year with fresh Brine, and, when she is about to make Cheese, she puts some Whey to stand all Night, and in the Morning she skims off a Sort of Cream; then takes her Rennet-bag out of her earthen Pot, and lets it lie two or three Days in this Whey; by this Time it is sufficiently tinged with the Brine and curdling Nature of the Bag (which she never makes any Holes in, as some do) then she takes it out, and uses the Whey for Rennet, that will keep three or four Days or longer; and thus she proceeds all the Time she makes Cheese, for a few Cows, each Time throwing Salt on the Bag, to keep it sweet in the Pot. and as it grows weaker, through often Using, the more Rennet must be put into the Milk.

The Welch Way of making Rennet. In *Caermarthenshire*, the Women empty the Curd out of the Bag as soon as it comes from the Butcher, and, after cleansing it well from Hairs and Filth, she rubs it soundly with Salt, till she intirely clears it of all slimy Matter; then she washes it with Salt and warm Water, and lets it lie under Salt in a Pan a Day or two, when she mixes a Pint or Quart of Stroakings, with a Handful of Salt, and puts all into the

Q

Bag:

Bag; then she runs a Skewer through at Top, and hangs it up, with a Pan underneath, to catch the Brine. Now, to improve this Brine, she takes a Handful of an Herb called there, *Goose-tongue*, and not quite so much Fennel, two or three Rases of Ginger bruised, and a few Corns of *Jamaica* Pepper, and two Handfuls of Salt; these she boils in three Quarts of Water, till it is half consumed, stirring it well all the Time; then she strains it off, and, when cold, mixes it with the aforesaid Brine that dripped from the Bag, and thus she has a Rennet for making Cheese. Again, when she finds the Brine ceases to drop from the Bag, she puts a little more Milk and Salt into it, and when the Bag decays, which it generally does at a Year's End, she boils it in the Liquor to get the Vertue out of it. *Note*, if the Calf sucks the Cow before she has been milked two or three Times, it will not only damage the Calf, but render its Bag very unfit for the Rennet Use, by breeding a hard Curd in it. *Note also*, That the *Goose-tongue* Herb grows chiefly in marshy Grounds, is very hot on the Tongue, and bears a yellow Flower in this Month, with an indented Leaf of a longish Make, somewhat like a *Goose's-Tongue*, that will not only help to preserve Cheese, but give it an agreeable Relish, as the *Welsh* say.

To make a bottled Rennet that will keep Cheese from boving, and preserve it sound. Put four Gallons of Whey into a Kettle, and; as it heats, throw a Handful or two of Salt into it, which will raise Curds, that, before it boils, must be all clean skimmed off. Then put into the remaining green Liquor some *May-flowers*, or Leaves, Boughs, or Bark of *Black-thorn*, and boil them in it a Quarter of an Hour; when cold, strain off. In this put two or three Calves Bags, that have been kept some Time in a Pot of Brine, to lie three Days; then take them out,

out, and
This is h
and thus
her Renn
ries they
in severa
to use at
Pots, th
then, as
crease th
good th
thus: Pe
with a H
a Quarte
and let it
to Bottle

To m
the Mill
or less, i
by gentl
ly every
chiefly t
may exp
put the
fro, Clo
it of the
and Clo
and a w
that the
Holes in
salt the
the Che
it out,
must be

To m
Places,
Nature,
produce

out, and bottle up your Rennet well corked for Use. This is best made in the Months of *May* and *June*, and thus a Woman, that kept but six Cows, made her Rennet for the whole Year. In some great Dairies they keep ten or twenty of these Rennet-bags in several Pots of Brine, that they may have them to use at a due Age; and, to preserve them in the Pots, they throw some Salt on their Tops now and then, as they lie in the Brine, which will still increase their turning Quality, and make them hold good the longer. Another makes bottled Rennet thus: Put one Pint of Whey into six Pints of Water with a Handful of Salt and five Sage Leaves, boil all a Quarter of an Hour, when cold, put in the Bag, and let it stand four Days, then strain the Liquor into Bottles with a Dozen of Cloves.

To make Cheefe. After the Rennet is stirred into the Milk in a Tub, in about half an Hour, more or less, it will become a Curd, which must be broke by gentle Degrees with a Skimming-dish, as equally every where as possible, for on this depends chiefly the making of good Cheefe, otherwise you may expect it to be full of Holes and Eyes: Then put the Curd into a Cloth, and move it to and fro, Cloth and all, over the Cheefe-rack, and clear it of the Whey. When this is done, put the Curd and Cloth into a wooden Mould, or Cheefe-vat, and a wooden Cover on that, and then press it, that the remaining Whey may run out through the Holes in the Vat: Next Morning take it out, and salt the Cheefe all over, turn it, and put it into the Cheefe-press again; when it is stiff enough, take it out, and put it on a Shelf, where the Cheefe must be turned often, and wiped with a coarse Cloth.

To make Cheshire Cheefe. Their Soil, in many Places, is of a marly, and some of a rich sandy Nature, which bears a most excellent Grass, that produces a rich Milk, and the best of Cheefe.

Here they break their Curd well with the Hand, and upon every Layer of Curd they sprinkle a little Salt, and so on the Outside at each Turning, which, after a Year's End, is fit to eat, but better if it is two or three Years old. I have eat this Sort in a very mellow pleasant Condition, after it has lain some Time in a Wine-Vault on a Pipe of Sack; but better still, when it has been fed with Sack, put into a Hole of it, which certainly improves this Sort of Cheese to a surprizing Degree of Richness. But, in some Parts of *Wales*, they make Cheese of Sheeps, Cows, and Goats Milk, that, they say, exceeds *Cheeshire* Cheese. Therefore in next Month I shall give you a very particular Account of making *Cheeshire* Cheese, and another to make Cheese with Sheeps Milk, that is sold in *Chester* City for Six-pence a Pound, as it is made and brought there out of *Denbighshire*.

To make a very thin Cheese. To make this Cheese, some will fill the Cheese-vat with the Cloth and Curd; but, as it sinks, fill it up with fresh Curd every Hour till Night; but never do this with the Hand, only with a Skimming-dish. Next Morning they take it out, turn and salt it all over, then put it into the Cheese-vat again, and so on till it is stiff enough to take out for good. Then turn and wipe it on a Shelf Night and Morning; but, if it is late in the Year, some put this Sort of Cheese at Night in a Rack made for the Purpose, and in the Day-time on Shelves. When one Side is gently dried before the Fire, they turn the Rack, without shifting the Cheese, till it is thoroughly dried. This thin Cheese, made with all new Milk, is ready to eat in a Month's Time.

Marygold Cheese and Carrot Cheese. It is made as others, only with this Difference, bruise or beat the small yellow Flowers, and squeeze out their Juice, which must be mixed with the Curd, when broken, and

and stirr
And so
squeeze

Sage
Sage an
with the
Sage wi

To m
Stroakin
with a
be but t
of Crea
in your
Way w
settle it
a Cloth
of it.

it half a
set it in
it has l
in whic
and sal
Mornin
changin
the Clo
you can
make t
be goo
must a
portion
the Sp
to it th
will co

To
Quarts
ful of
take i
ther sq

and stirred well into it. It is a rich Cordial Juice: And so the Carrots are to be beat, and the Juice squeezed out.

Sage Cheese. It is made like the rest, only bruise Sage and Spinage together, and put the Juice in with the Rennet; the more Spinage, the less the Sage will taste.

To make a fine Cheese. Take three Gallons of Stroakings, and put to it a Gallon of boiling Water with a Quart of Cream; mix them well. If it be but the Stroakings of ten Cows, put in three Pints of Cream. When it is of a right Warmth, put in your Rennet, and, when it is come, cut it every Way with your Knife, and, letting it stand, it will settle itself without your Hands; then put it into a Cloth, and turn it every Way till the Whey be out of it. Then put it into the Vat or Mould, and press it half an Hour, at the End of which take it out, and set it in a Tub of cold Water in the Vat, and when it has lain here one Hour, put it again into the Press, in which let it stand one Hour; then take it out and salt it, and put it in the Press to stand till next Morning, when it must be put into a wet Cloth, changing it as often as it dries, and be sure to keep the Cloths sweet and wet. Set it in the coldest Place you can, and it will be ready in a Fortnight. If you make this Cheese in the Fall of the Leaf, it will be good till *Christmas*, and longer; but then you must add more Milk, Cream, and Water, in Proportion. *N. B.* If you make this Cheese early in the Spring, or at the Fall, then put your Rennet into it the hotter; but, if in Summer, as cold as it will come.

To make Slipcoat or Cream Cheese. Take six Quarts of new Milk, a Pint of Cream, and a Spoonful of Rennet, and, after the Curd is come enough, take it gently from the Whey; then shake, or rather squeeze it tenderly in a Cloth over the Cheeserack

rack, and put all into a wooden Mould, and a Weight of three or four Pounds on its Cover. Next Morning take it out, salt and turn it, then put it into the Mould again, with the same Weight on, and at Night take it out for good. This Cheefe must directly be laid on a Bed of Nettles or Rushes, or Ash-leaves, and covered with the same, shifting it twice a Day, for eight or nine Days, and then it will be ready for Eating.

To make an excellent Cream Cheefe. N. B. Take two Quarts of sweet Cream, set it over the Fire till it has boiled up; then take it off, and put to it four Quarts of Stroakings warm from the Cows, and when you have stirred it together, that it is not too hot, put into it two Spoonfuls of quick Rennet. When it is come, turn it whole into a Cloth, then whey it as you do any other Cheefe, and, when it is come well together, put it into the Vat, and lay about ten Pound Weight upon it, only till you can turn it, which must be in an Hour or two; then take it out, and put it into fresh Cloths, till it will wet no more. Then salt it as you think fit, and let it lie out of the Press a Day or two, when you are to put it between two Pewter Dishes, and turn it once a Day for three Weeks; then take it from between the Dishes, and let it be four or five Days before you eat it.

The Montgomery Way to make Cream Cheefe. Take six Quarts of Stroakings, or new Milk, and one Quart of Cream; then put one Quart of boiling Water on it, and a Spoonful of Rennet, which cover very close with Cloths. When it is come, whey it with a Skimming-dish, but have a Care of bruising the Curd too much; then turn it on a Cloth into the Cheefe-vat, and let it lie under a six Pound Weight. Change your Cloth once in three Hours, but be sure not to let it be quite dry when you use it, lest it sticks. Lay Salt on the last

Turning,

Turning
Flannel

To
kept bu
a little
into Ch
they ca
Cheefe
to the
fifteen

To m
of Crea
six Gal
Cream
boiling
than M
or as m
are cor
a Clot
and pu
Vat an
doing,
it; the
half an
Press a
Cheefe
fourtee
This r
Pound
Pence:
good f
and fir
well w
Taste.

Seve
serve it
net to
too qui

Turning, and keep it in Grass near the Fire, with Flannels under and over it.

To make a poor Cheese. A certain Farmer who kept but three Cows, and made Butter, used to put a little Skim-milk to his Butter-milk, and make it into Cheese: Also, in some Parts of the *West*, where they carry on the hot Dairy, they make a poor Cheese with the Skim-milk that is commonly sold to the Tanners or Miners of *Cornwall*, for ten or fifteen Shillings a Hundred.

To make a rich Cheese. Mix half your Quantity of Cream with your Milk hot from the Cow. If six Gallons of Milk, there must be three Gallons of Cream. Stir them together, and put in as much boiling Spring-water, as will make all a little hotter than Milk from the Cow; then put in a Spoonful, or as much Rennet as will do. When the Curds are come enough, gather them from the Whey into a Cloth, and break them very small; then salt it, and put it into a Cloth again, and then into the Vat and Press for only two Hours. While this is doing, boil the Whey, and take out the Curds from it; then put the Cheese into this Whey to stand half an Hour, at the End of which, put it into the Press again, and, when it is enough done, roll the Cheese in Linnen very tight, and let it remain so fourteen Days, and turn it twice a Day for a Month. This rich Cheese is as well worth nine Pence a Pound at the Dairy, as Two-meal Cheese is three Pence: But even this Cheese is not to be made so good from long Vale Grass, as from the shorter and finer Sorts. If you first tincture this Cheese well with Mace, it will give it a very agreeable Taste.

Several Directions to make sound Cheese, and preserve it so. Take Care you don't put too much Rennet to the Milk, for that will bring on the Curd too quick, and hove the Cheese. Likewise, if the Milk

Milk is too hot, when the Rennet is mixed with it, it will do the same. New Rennet is also apt to bring on this Misfortune, and therefore some are so careful, to mix the new with the old: Or, if you are to use all new, keep it a Week before it is put to the Milk. Others, to prevent the Cheese's Hoving, will mix skim and new Milk together, which, with well breaking of the Curd before-hand in the Cheese-vat, and squeezing the Whey out clean, will answer the End. Others take a great deal of Care not to over-press it, lest it make the Cheese hard and unpalatable; though it is certain, that, by such hard Pressings, the Cheese will keep the longer. The forward made Cheese, in some Seasons, dry so fast, that they are forced to turn them often, and rub them, to keep off a blackish nasty Coat, that otherwise would eat into them, and spoil their Sale. Some again, more nice, after they are rubbed and turned several Times, will butter their Out-sides all over and keep them sound, and add a golden Colour to them. If the Summer is very hot and dry, put the Cheese into shady Places, and dry leisurely, for, if they dry too fast, it is apt to hove them, and make them full of little Holes. But in, and after *August*, they never fear this, nor that they will have a bad Coat. Others, to keep Cheese from rotting, will put Whey on two Rennet-bags, to the Quantity of a Gallon, which they let lie three Days, then draw out the Liquor, and boil it with some Bark of Black-thorn; when cold, either put it over the Rennet-bag, a little while, or, by adding some Salt to it, you may use it directly. You may give Cheese several Sorts of Relishes as you like best, by boiling Sweet-briar-tops, or Mace, or other Spices, in the Brine or Rennet: But Mace alone is preferred by most. In this Month, in some Grounds, Cheese is very apt to hove, though the Cows are fed on natural Grass; and therefore, in
some

some Dairies, they don't make their thick keeping Cheefe till *June*. I know a Ground in a certain Vale, that, in dry Years especially, runs into Knot-grass or Clob-weed, wild Garlick, and some other pernicious Weeds, to that Degree, that, if they don't break the Curd very well with their Hands, after it is wheyed, and then cut it into Diamond-Pieces, and work it a second Time, the Cheefe will certainly prove specky and rot: Or, if they put a greater Quantity of Rennet into the Milk, than what by Experience they have found proper, it will surely hove the Cheefe into a Puff, and spoil it.

Somerfetshire Cheefe. They break the Curd as leisurely, and as small as possible, then drip out the Whey; with this Whey mix half Water, and heat it over a Fire between warm and scalding; then strain it upon the dry Curd in a little Pail or Tub, and work it round with the Hand, and, after it has thus lain half an Hour till the Whey creams over, drip the Whey out and knead and bruise the Curd well; when so done, put it in a Cloth and then into the Vat, and press an Hour; then take it out and wash the Cloth, and let it stand in the Press till the Evening, when it is to be taken out and salted on both Sides and pressed again till next Morning; then take it out and put it into a dry Cloth, and let it stand till the next Evening; now it is to be taken out from the Cloth, and let stand naked in the same Vat to smooth it all Night; next Morning take it and put it on a Shelf. *N. B.* The Whey and Water is to keep it from hoving.— In next Month I intend to give you a very particular Account how to make *Cheshire* Cheefe, and thirteen other Sorts, more than are here, that you may make that which best fits your Fancy.

To turn Milk without Rennet. A French Author says, that Carduus-seeds, the Spawn of a Pike, the Juice of the Fig-tree, Ginger, the inner Skin of

R

a Hen's

a Hen's Stomach, or the Flowers of Thistles or Artichokes, are of so four a Nature, as to turn Milk into Curd: But the most natural Thing of all others for this Purpose, is certainly the Maw of a suckling Calf or Kid. Some cut off a Bit of this prepared Maw, and put it into the Milk: Others pickle the Maw, and dry it in the Smoke. In *Essex* they have an Herb called *Cheese-Rening*, or *Yellow-Lady's Bed-Straw*, which turns Milk like Rennet.

The Character of a good Cheese. He says, it should be fat and heavy, the Meat of it close, and well compact, of Colour something yellowish, sweet to taste, pleasant to smell, and nothing mouldy nor mity; made of pure Cows Milk, without mixing any Sheeps Milk therewith, for it makes the Cheese less savoury, and more whitish.

To make Cheese at Over in Cambridgeshire. To twenty Gallons of Milk, they put three Spoonfuls of Rennet, and in half an Hour it comes; but they don't put it hot from the Cow, only luke-warm, else it will be tough, and run to Coat. Then break it with a Skimming-dish, and stir it from the Bottom all one Way, for, if it is mashed together every Way, it will be lean, *i. e.* the Butter will run more into Whey. When it is settled half an Hour, take out a Plug that stops a Hole in the Middle of the Tub to let out the Whey; then put the Curd into a Canvas Cloth, and roll it gently up and down between two Folks, till the Whey is drained out. When done, tie it up, and hang all on a Nail to drip dry; then put it into a deep Cheese-Vat, and lay a Board over it, and on that a four Pound Weight, to fasten it, and leave it so all Night. In the Morning, this Cheese is turned out nine Inches thick, and with a long silken Thread cut into Cheeses half an Inch thick, which are laid on smooth Boards and gently salted and turned twice
a Day

a Day for the first four Days, and then laid on Nettles near the Ground, and turned twice a Day for three Days, and the next Day they are laid on Boards to dry; and six Cheeses, on each of them Boards, are carried to Market, where they are sold after three Pence and four Pence a Pound. In hot Weather, eight Days, in cooler, a Fortnight finishes them.

A second Sort of Cheefe, called Morning-Milk-Cheefe, is made of the whole Meal of Morning Milk, and set hot from the Cow, and made after the same Manner, and will sell for two Pence or three Pence the Pound. This Cheefe will have a rough Coat, and will keep two or three Years, if laid moist in a Cellar, the other will be smooth.

A third Sort, is made after the same Manner, but thicker, and pressed harder, which will keep all the Year, and is called *Morning-Milk-Cheefe of the first Make.* This sells for four Pence the Pound, and is dry and fit for Eating the latter End of July.

A fourth Sort, called Evening-Milk-Cheefe of the first Make, is made after the same Manner, and sells for a Half-penny, or Penny a Pound less. The Reason, why Morning Milk is best, is thought to be from the Rest of the Cow; is much less in Quantity, and is but eight or nine Hours from the last Milking; and it yields more Cream, and it will not sour in hot Weather, so soon as the other, by three or four Hours.

A fifth Sort, is Two-meal Cheefe, viz. the Morning Milk is set till Night, and skimmed, and to it the Evening new Milk is put, and so made into a Cheefe as before, which will sell for two Pence, or two Pence Half-penny the Pound.

A sixth Sort, is fleet Milk Cheefe, which must be in a Heat accordingly, when put together, and made as the other, only pressed very hard, and sold

at two Pence the Pound, or under; but it is seldom brought to Market.

The old Way of making Cheshire Cheese. When, at six Years old, the Cows are in their Prime, sixty will yield six Quarts each every Meal; of this the best Cheese is made as follows: The Milk is strained into a Cheese-Tub, as warm as they can from the Cow, to which are put six Spoonfuls of Rennet, which being stirred well together, and covered with a wooden Cover made fit for it, about the Beginning of *June* it stands three Quarters of an Hour, but in hot Weather less Time; then with a Dish break it pretty small, and then it must be stirred gently moving till it is all come to a Curd, when it must be pressed down with the Hands and Dish gently, lest the Whey rises over white; and when all the Whey is drained, and the Curd pretty hard, then it must be broke into a Vat very small, and heaped up to the highest Pitch, and then pressed down with the Hands gently at first, afterwards harder, till as much Whey be got out as can be that Way, and yet the Curd be at least two Inches above the Vat, otherwise the Cheese will not take Press, that is, will be four, and full of Holes or Eyes. This done, it must be put into one End of a good flaxen Cloth, and covered with the other End; and then the Cloth must be tucked in with a wooden Cheese-Knife, that it may lie smooth, and yet keep the Curd quite in; then this is pressed with a Weight of four Hundred, and left to stand from Morning about Nine, till Afternoon about Two o' Clock, and then taken out, turned into a dry Cloth, and pressed again till Six at Night, and then it is taken out, and salted all over (else it will be maggoty) and put in the Vat again to lie in it all Night; then it is taken out and salted again, and so it lies in a Tub, or on a Dresser, four Days, only it must be turned every Day: This done, it is

washed

washed in cold Water, wiped with a dry Cloth, and carried into a Cheese-loft to dry, where it must be turned and wiped every Day till sold. If the Salt is not wiped or washed off, it will give, and make the Cheese always moist. The Reason of Mouldiness, Cracks, and Rottenness, is the not well Curing it, as Pressing and Looking after it well.

Remarks on Cheese and Butter. If Milk be set too hot, or be scalded in the Curd, as some call it, the Cheese will be bitter, and, the longer such is kept, the worse it will be. If it be set over cold, it will cut white, and eat harsh and dry when new; but it will improve by lying, and is best esteemed of for keeping Cheese. One of the greatest Faults in Cheese is, its Heaving, which is common where there is the richest Pasture: Some say the best Way to help this is, by pasturing Sheep with their Cows, that the best of the Grass may be quickly eaten. Another Way is to salt them in Brine, or lay them on cold Pavements, for it is reasonable to believe, it is caused by an over-great Fermentation, not only from the Heat, but also from the Briskness and Thinness of the milky Particles gained from the Luxuriancy of the Grass; therefore cool Rooms in Summer, and warm ones in Winter, are most agreeable. — To stop the quick Flight of watery Particles caused by drinking cold Beer, and other thin and spirituous Liquors, that leave the Body dry, faint, and feeble; the *Dutch* eat much Butter, the *French* much Bread, and the *Spaniards* much Chocolate, which is very oily. If therefore our Mowers, and other Labourers, would use hot Broth more, or buttered Beer, or Ale, it would make them cooler, less thirsty, and enable them to do more Work. Cheese is a Food most nourishing, and, if good, the older the better; we see it and strong

strong Drink support the Labouring-man six Days in the Week. Cheefe is valued every where.

C H A P. VIII.

Of Butter.

AS I have already observed, that some Ground will not produce good Cheefe, I likewise have here some Reasons to offer on Account of Butter; for where the Grass is long, rank, rushy, marshy, or in Woods, then the best Sort must not be expected: However, as Art assists Nature, somewhat of these Deficiencies may be helped by Improvements. First, then, I shall observe, that the Food of Cows are natural and artificial Grasses, Turneps, Coleworts, green Thetches, Rye, *French Wheat*, &c. But the natural Grasses are, past Dispute, the best of all others, and of them the Upland Sort excels; and, of that, the Grass, produced by the Manure of Ashes, Soot, Lime, or Salt, is the sweetest, for making Butter; but that, which gives the Butter a delicate deep yellow Colour and Sweetness, is the Lady-finger Grass, as I have before observed. Clover-Grass, indeed, is a full Bite, and produces a great deal of Milk; insomuch that an Acre of this, well planted, is reckoned to feed as many Cows as two or three of Meadow; but this has its Faults, for, at best, it makes but a coarse Butter and Cheefe of a disagreeable Taste, and worse if it stands too long before it is fed; therefore it is best sown with Ray-grass and Trefoil, which will make a better Butter, and be a safer Feed than Clover alone. Lucern, also, will cause Abundance of Milk; but I am obliged to say it is a hoving rank Grass for Cows. *St. Foyne* and Trefoil, likewise, breed much

much Milk, but the former is not so proper to feed Cows in the Field, by Reason its succulent large Stalks are apt to bleed, and lose their Sap too much, when the latter will not, and is one of the best artificial Grasses for this Purpose, if fed young, else it is apt to cause a bitter Taste in the Butter. In Consideration of which bad Properties, some will mow these Grasses daily in the Summer, and give them the Cows under Cover, to make them lose their hoving and rank Quality in a great Degree, prevent the Cows trampling them with their Feet, and keep the Cattle from the Fatigue of Flies, and the scorching Heats of the Sun, as I every Summer do, for carrying on the Business of suckling Calves; and this we are the rather encouraged to do on another principal Account, which is to preserve their Feet sound; for, if the Cows suffer by long Drifts and sore Feet, they will give less Milk, though they feed in the best of Pasture; therefore I have known a Gentleman be at the Charge of Shoeing his Cows, even in the more softer Vale Ground.

Necessary Utensils. These being indispensably necessary in a Dairy, it is of Consequence to have them in the greatest Perfection. Of all Churns, there is none so good as the Barrel Sort, for Dispatch, Ease, and Profit; for some of these will churn forty or fifty Pounds at a Time by one Man's turning it, or sometimes two: I have one of the Firkin Size, that churns from one to two hundred Pounds, with Ease. Next to this Utensil, is wanted the square wooden Cooler, lined with Sheet-lead, and mostly at this Time of the Year used for setting Milk, instead of the old-fashioned Brass-pan, which gave the Milk a small Tang. In Summer-Time the Leads are accounted better than the shallow round Tubs, because of their great Coolness and smooth Sides, which in hot Weather raise much Cream, and for
let-

letting the under Skim-milk out at a Cork-hole as they lie. The earthen glazed Pans are also serviceable on this Account, and will answer the Purpose where Leads can't be afforded; but, in Winter, the Tubs or Kivers excel, as being warmer, and consequently raise most Cream. Cellars are best to keep Milk in, and that, under the Cover of a thatched Roof, is better than one of Tiles; because the former is warmer in Winter, and cooler in Summer, than the latter. The great oval or round Tub is constantly used in Summer, where there be a Number of Cows kept, to receive and cool the Milk, before it is put into the leaden Kivers, and then there will arise the more Cream. Others will first put in a little cold Water in each Lead in the Summer, and warm in Winter, and the Milk from the Cows on that, which will cause it to yield more Cream, keep it longer sweet, and prevent its Clouting or Roping. There are also several other Utensils belonging to the Dairy, as a Straining-sieve, Pails, Trenchers, Weights and Scales, Basket, Trays, and others well known to every Dairy-maid, and some Sort of Shop-keepers.

The Management of new and skim Milk. In Winter they let their Milk stand two Meals before they skim. In Summer, that which they set at Night, they skim next Morning, and so on gradually, according to the Season of the Year. If they keep above twelve Cows, they commonly churn three Times a Week in Summer: If under, twice a Week in Summer, and once in Winter. I know a Vale Farmer that keeps fourteen Cows, and yet churns but twice a Week in Summer, and that under the Disadvantage of having no Cellar; but then he is obliged to skim his Milk every twelve Hours, and just boil the Cream a Wallop or two to preserve it, for, without this Method, he could not keep it

two Days together, from a little Sowering another, after the Cows are all milked, will drip them over again, and put the Stroakings (which are little inferior to Cream) cold into the Cream-Pot, to keep the rest sweet and fresh. In Summer, wash out the Leads with cold Water, and give the milky Water to the Hogs. In Winter, do it with hot Water; but never employ a hand Brush, or hard Sand to scour them with, only with a Piece of Leather, or Wisp of Straw or Hay, rub them with Salt or soft Sand, or Wood-ashes.

To improve Cream. To do this, take a Pint, or more, of Stroakings, that may be got from six or eight Cows, and divide it into several Pans, or Leads, or Kivers; then pour into the same your new Milk, and it will increase your Quantity of Cream. About *Bristol* in the Winter-time, they boil their earthen Pans, and dry them by the Fire, to raise the more Cream by their Heat. Many, after the first Cream is taken off, will let the Milk remain in the Leads, Pans, or Tubs, for six or seven Hours, and then skim off another Cream; the first is to make prime Butter.

To keep Cream sweet in the hottest Seasons. In Summer, some are so curious, as just to boil the first Skimming of Cream, in order to make it serve, as a Security, to keep all the other raw Cream sweet, that is afterwards to be added to it, so that, if your Churning is twice a Week, there must be two Boilings of the first Cream.

A second Way, is to keep raw Cream in an earthen or leaden Pot, and that kept in cold Water, shifting it every Day into a fresh one; and this Practice may be carried on to Advantage, during the whole Summer. But, in Winter, twice Shifting in one Week will do for making good Butter.

A third Way, to keep Cream sweet, is to put a little Salt among the first, and the Cream of other Meals on that, which, with Stirring now and then to keep it from Clotting, will be a great Means to preserve it fresh and sweet.

To make Butter in a cold Dairy. When the Cream is ready, carefully strain it through a Cloth into the Barrel-Churn; and, as this Sort of Churn by a Handle and Spindle may be used with a more even and constant Motion than the beating upright Sort, be sure to turn it gently, for then the creamy fat Part will separate from the thin watery Part, and cause the Butter to come hard and stiff, whereby it will obtain a sweeter Taste, and keep longer; but, if it is turned too fast, and with uneven Motions, it will make the Cream ferment too much, and be all of a greasy bitter Nature: Again, if you cease your Turning but a few Minutes, the thick and thin Parts will unite, and be apt to join, and then the Labour must be renewed. If Cows are stale milched, the Butter is difficult to come, and so it is in extreme cold Weather. If the Cream swells and hoves in the Churn into a high Froth, then it will be some Time before it comes; therefore, in Winter, put some hot Water or hot Milk into it. Others will put a Half-Crown-piece into the Churn, or a pewter Spoon, to make the Butter come the sooner. But the common Way in Summer-time is, to put cold Water in, and fill the Churn with it, just before the Cream is strained into it, and in Winter as much warm Water. The first is to prevent Over-heating the Butter, which greatly damages it; and the latter, to take off the Chill, that otherwise would impede it. When the Butter is come, which you may know by its Quashing, turn something slower than you did, that it may the better gather, and then, before it is enough,

nough, it will be sometimes near Half an Hour; then take it out with your Hand, knead it well, and mix beaten Salt regularly with it; this must be carefully regarded, else the Butter-milk, Whey, and Salt will shew themselves in Strakes, that will soon corrupt and spoil the Butter.

To make Butter in a hot Dairy. There is more than one Way to do this: In two certain Counties, where I have travelled, they make almost all their fresh Butter, that they sell in their Markets, in the *hot Dairy*, as they there call it. One Way take as follows, *viz.* — They put their Milk as hot, and as soon as they can, from the Cows, into bras or earthen Pans, and let it stand twelve Hours; then, with a steady Hand, lay Pan and Milk and all on an iron Frame, under which should be burning Charcoal, or Live-coals of Wood, whereof the ashen Sort is accounted best; which are to heat the Milk and Cream, till it is scalding-hot, or that you can bear your Finger in it; then take it off, and let it by twelve Hours more, when you are to skim off a clouted Cream very clean. This, with more, is to be put into a Barrel-churn, just rinsed before with cold Water in Summer, and hot in Winter, else the Cream will stick. Then churn away, and, in little more than Half an Hour, the Butter will come, and be very sweet for two or three Days, if you beat all the Butter-milk clean out of it. —

N. B. The hotter you put the Milk from the Cows into the Pans, the more Cream will arise; and, if you use the earthen Sort, they must be first boiled, or heated before the Fire, in order to keep the glazy Part from cracking, which otherwise they are apt to do, and give the Butter a disagreeable earthy Taste.

A second Way is by putting Milk in a Pan over a few Embers, and, at twelve Hours End, to skim off a clouted Cream with the Hand, which, by being

put into a wooden Tray, or Bowl, may, by Motions of the Hand, be presently beat into Butter. Thus, while a Dish of Fish has been dressing, the Butter has been made for Sauce; and thus, by heating the Milk, the greatest Quantity of Cream is to be obtained, and the Butter-milk so sweet, as to serve for several Uses; but observe, that Coal or Turf-fires spoil the Sweetness of both Butter and Milk.

To make Whey Butter. This is done by setting the Whey from new Milk-curd in Tubs, Leads, or Pans, as they do Milk from the Cow, and, when it has stood long enough, there will be a Cream over it; which churn, and make Butter with it. But some, to improve it, will add some new Milk-cream to the Whey-cream, and then it will make Butter, that sells for about a Penny a Pound cheaper, than the better Sort. The remaining skimmed Whey they give to the Hogs; for Whey is said to fat a Hog, when it will starve a Dog; and Butter-milk to fat a Dog, and starve a Hog. — A certain Dairy-woman always used to boil her Whey-cream in a brass Kettle, and put it each Time into a Pot to other Parcels, and made it into Butter twice a Week: This Method makes such Butter keep almost a Week together, and not so rank, as that made with Boiling. Butter-milk, given to Store-pigs, will scour them, but it will not older Hogs.

To make Butter in Winter. Scald the Churn, and empty the Water, then directly heat your Cream, and put it in; churn away with a pretty quick Motion to keep the Heat on; and, if the Butter comes in very small Bits, as it sometimes will, little bigger than great Pins Heads, put a Pint of hot Water into it, and churn leisurely, and the Butter will gather, and come well.

Another Way. I was told, in *Suffolk*, to make Butter after a very particular Manner, thus: Put
as

as much Cream into an upright Churn, as you think will make six Pounds of Butter; set the Churn before a Fire, and stir well into it six Spoonfuls of Rennet; let it remain in this Posture an Hour and a Half without Stirring, turning the Sides of the Churn now and then to enjoy an equal Heat; at the End of that Time, churn away with the Mundle-stick, and, in about six Minutes, you will have a Butter; then let it stand a while, and it will gather; which take out, and wash, as usual. But this I never tried.

To prevent or lessen the rank Taste of Butter, made from Clover, Turneps, Leaves of Trees, and other strong Foods. As Milk is the most homogeneous and universal Diet to the Body of Man, the Enjoyment of it, in its purest Condition, ought to be endeavoured with our utmost Care. In the Year 1737, I observed, that the Generality of the People of *Bristol* and *Bedminster* are so nice in this important Article, that they refuse all Milk, they know is produced from the Food of Grains; and, when about *Michaelmas*-time, that the Leaves begin to fall, the Dairy-woman is obliged to manage after a different Manner, than she did all the Summer before: To do which, she leaves off making Butter in her cold Dairy, and then begins to make it in the hot Dairy, according to the aforesaid Method, in order to prevent an ill Taste in the Butter, that may arise from the Cows Eating Ash, or other Leaves, that then lie on the Ground; and this Way she continues all the Winter, and till they eat nothing but Meadow-grass again, that no ill Relish may accrue from Fodder, or otherwise. How excellent, then, must this hot Dairy prove to those, who have nothing but Clover, Lucern, and Trefoil-grasses, and Hay; or that feed their Cows on Turneps, Coleworts, Carrots, or Grains, and Fodder, all the Year; for, by this Means, the Rankness of their Milk, if not wholly

wholly taken off, is much abated. However, in next Month, I shall give you a Copy of a large Account, published by the *Royal Society*, of a Method, communicated to them, for feeding Cows after a most profitable Way; whereby those, who have a Conveniency for it, may make the sweetest Butter at the cheapest Rate, and the smallest Cow to return ten Pounds a Year, and that by feeding her with no other Food, than one Sort of artificial Grass, and the Hay made of the same after a peculiar Manner: Also how to pat Butter, and turn Salt-butter into fresh, and make it after several Ways, as they are at this Time practised by the nicest Dairy-farmers in the Vale of *Aylesbury*, and other Parts.

Why Making Butter and Cheese is more profitable, than Suckling Calves. This brings in Money without laying out any, furnishing, besides, skim Milk for Family Use, and wherewithal to feed Swine; whereas, in Suckling, there is a Charge, and Trouble of going to Market to buy Calves, and then no more Profit, than bare Suckling.

Cambridge-Butter. This Butter is deemed the best Sort of Salt Butter sold in *London*; and the Way of managing this and Cheese I shall give you, according to Mr. *Houghton's Dairy Housewife*. At *Over*, where they make the best Butter for the Colleges, seven Miles from *Cambridge*, they sell off their driest Cows, and buy in others, that will calve in each Winter-month; which as they are new-milched Beasts, they produce a yellow Butter, that they sell by only the Weight of sixteen Ounces to the Pound. In *April*, they go in natural Grass, and give about twelve Quarts each a Day; which Parcel, when skimmed, yields about a sixth Part, or four Pints of Cream, which will make almost two Pounds of Butter.

They churn twice or thrice a Week, and put the Cream

Cream into a clean earthen Pot every Morning, which keeps it from souring, and makes it the best of Butter, though not so much.

About Sun-rising, they put the Cream into a Barrel-churn, after they have milked their Cows; for it is a Proverb, *If the Cows be not milked by the Time the Herdsman blows his Horn, it spoils the Dairy-maid's Marriage*; and he blows about Sun-rising.

In a great Dairy, they sometimes put into a Churn, about the Bigness of a Barrel, twenty-two Gallons of Cream, which fills two Thirds of it. This, with the Labour of a lusty Man and Maid, comes to Butter in about an Hour's Time, more or less; in hot Weather it is soonest, in cold Weather the longest; but, if the Cold be much mended by the Fire, it changes the Butter in Taste, Colour, and Stiffness; but to be in a Room, a Yard and a half distant from the Fire, does well; but, in very cold Weather, they put boiling Water into the Churn, till it thoroughly heats it, and, that being taken out, they put in the Cream. These twenty-two Gallons, or 176 Pounds of Cream, yield about seventy Pounds of Butter.

Here some use the upright Sweep-churn; others use Barrel-churns, and reckon them best; and one, that keeps sixty Cows in *Denny*, a near Town, has a Barrel-churn, that holds an Hogshead.

When the Butter is come, it is taken out and washed, if for present Use, otherwise not; and, with a little fleeting Dish, drawn backwards and forwards in a Bowl, a little at a Time, to let out the Butter-milk; and, the cleaner that is got out, the better is the Butter: Then it is salted; and a Quart of Salt, which is about the fifteenth Part, will serve thirty Pounds of Butter; but some put more or less; and, when salted, it is drawn over again, with a fleeting Dish, once or twice; then weighed into Pounds, and rolled into long Rolls;
then

then put into a Basket, and hung all Night in the Well, within a Yard, or four Feet of the Water; which will make it stiff.

A new Way to preserve Butter sweet and sound. It is said, that the *Over Butter* will not keep so long as *Suffolk Butter*; but a famous Dairy-wife, that lived there, used to make her Butter into Balls of thirty or forty Pounds Weight, and salt it a little more, than for fresh Butter; and this she laid in the Middle of a Bin of Flour, and it would keep good all the Winter. Others salt it as usual, and put it into Pots, and cover it about two Inches high with good Brine; but this will not keep so well as the other. Others make a Brine so strong, that an Egg may swim in it, and therein put Pounds of fresh Butter, and it will preserve them from Rowing beyond Salting the Butter.

The Butter-milk is drank by some, but the Hogs have the Main of it; and, if it stands long, it will turn sour, and, in a Week's Time, from five or six Quarts, will arise a thick Skin at Top, as thick as one's Finger; and, under it, will be a very clear bluish Whey, and, at Bottom, a thick Curd, but not like Cheese-curd; it is knotty and very slippery. Of this Butter-milk some poor People make Cheese, but it is very tough, and must be eaten, while green or fresh: The Whey, that comes from it, is very thin, sour, and green, and the Hogs care but little for it.

But this sour Whey will take off Sun-burns, cleanse and smooth the Skin, and keep it from Tanning.

In *May, June, and July*, they chiefly make Cheese; that is, they milk the Cows half, which they use for Butter; the other Half, or Stroakings, they use for Cheese; and these Stroakings yield most Butter and most Cheese, and least Butter-milk or Whey.

In an indifferent Year, a good Cow will yield, at this Time, sixteen or eighteen Quarts a Day ; and, if the Weather be dripping, she will yield more, and then Butter is made longer.

Sweet and new Cream will make very pleasant Butter for present Spending ; but, if the Cream stands till it is sour, the Butter will be very good, and keep longer, if it be not over-heated in the Churn ; but, if it once turns bitter, it is good to spend it presently, for it will soon decay.

At the Fall of the Leaf, and in cold Weather, Cream will turn from sweet to bitter, and the Reason is generally said to be, because the Cattle eat the Leaves of Trees ; but a Friend of mine will not allow it, because it will be so in low Grounds, where there are no Trees, as well as Uplands, where there are ; but what the Reason should be is hard to know, till we have a good Theory of Taste, which I find hard to be got, and greatly wanting. The best Way, he says, to prevent this Bitterness, is by setting the Milk a less Time, and churning oftener ; but this will produce but a small Quantity, and it is best to sell and spend it new, and not to pack it in Firkins, for it will not sell in *London*, but the Traders are forced to ship it off, and send it elsewhere.

Some churn new Milk, which makes the best Butter, but it will not keep. I am told, that, if salt Butter be well washed, and then beaten up with new Milk, it will taste like fresh Butter.

The *Irish* rot their Butter, and, in hot Countries, they clarify it : The Taste of either pleases not those that do not imitate them ; notwithstanding, I have eat excellent *Irish* barrelled Butter.

Whey Butter. The Cream of Whey will not yield half so much Butter, as the Cream of Milk will : It never is so hard as that, nor keeps so long ;

T

but,

but, if used fresh, it is almost as good ; a great deal of this is sold in the Markets.

Wild Curds. From the Whey, if set on the Fire, will arise wild Curds by putting new Milk and four Butter-milk to it : When it is ready to boil, and when it rises, the Curds must be taken off with a Fleeting-dish or Skimmer, and then, with putting in more Milk and Butter-milk, more Curds will arise : Two Quarts of Milk, and as much Butter-milk, will serve for six Gallons of Whey. Good Butter-milk and the best Whey will fatten Hogs well.

CHAP. IX.

Of Hogs.

O*f Feeding Hogs.* The common and cheapest Way of bringing up Hogs of late is to drive them in this Month into the Clover-field every Morning with the Cows, and bring them Home at Night, where they should have Plenty of Whey or Skim-milk, Wash, Grains or Corn ; but seldom give them any Breakfast, lest they neglect Feeding on the Grass : However, this great Conveniency has one Inconveniency attending it, and that is, the Clover will tincture their Flesh with a yellow Colour, that never will be intirely altered on better Feeding. The same does some Sort of Wash, where they are fed and fatted on nothing else but that and Grains ; as many are, to the great Profit of the Owner, which, being not to a great Degree deprived of their Goodness, are mixed with very hot Wash of Spirits, of so strong a Nature as intirely fats the Swine, both for Pork and Bacon in a little Time. Others buy their Wash of the Distil-

lers,

lers, and by mixing Bran, Pollard, or Grains with it, fat great Numbers, others will do this with the Offal of Slaughterhouses. But I knew a Tallow-Chandler, who sent his Greaves twenty Miles into the Country to feed his Swine with, that made such a Stench, as hardly could be borne by the Neighbourhood: How wholesome such Meat must be, may be easily judged. In my Opinion, Hogs, fed with Horse-flesh, are far preferable. So some will feed with Fish, who live by the Northern Sea; which undoubtedly gives an oily, unsavoury, unwholesome Quality to the Flesh. Others, again, will give the sweet Food of Carrots, Parsnips, Potatoes, Turneps, raw or boiled, and mixed with Pollard, Bran, Barley-meal, the Flour of *French* Wheat, Oatmeal, Grains, or Raspings of Bread, &c. or alone, as with Acorns, Beech-maste, Horse-beans, Pease, Oats, or its Meal, broken Barley, or its Meal, *French* Wheat or its Meal, Pollard wetted with warm Water. But Pollard, Starch, Whey, Skim-milk, Meals, and several other soft Foods, are indeed wholesome, and make a luscious white Flesh, but produce a loose Meat, which easily parts with its Fat in the boiling Pot, while the Bean, Pea, and other Corn make a close Bacon, and stiff Pork. I knew a Miller, whose constant Practice was to feed his Hogs half Way with wetted Bran, and then fed them on with a fine Pollard worth fourteen Pence the single Bushel, till they fattened and weighed forty Stone a-piece, and though the Flesh of them was looser than the Corn-fed Hogs, yet, by mixing a sufficient Quantity of Saltpetre among common Salt, it very much improved it both in Colour and Firmness. But the Flesh of such Hogs always weighs heavier than that fattened with Corn, and is generally whiter and sweeter; and it is for this Reason, that the Vale Men seldom fat a Hog with their Beans, but will give it a Couple

ple of Bushels of fine Pollard at last, to take off any Rankness the Corn may leave.

Breeding of Pigs. Now you that have been such good Managers, as to have a Litter of Pigs last Month, may cheaply wean them in this, as being the prime Month in the Year for Whey, Skim-milk, and artificial and natural Grasses; and if to the Whey and Milk you add Pollard, or Bran, or Grains, it will make them grow faster; but nothing comes up to Kernel, for if a few Pease or Barley, or *French Wheat*, &c. is given them besides, it will make them grow to a good Stature, in half the Time as Whey or Skim-milk alone will. By this early Breeding, the Pigs will thrive a-pace, and come in for their Share of Stubbling, which sometimes, in a Shedding Year, will half fat them for Porkers; or prepare them for Baconers, by the Help of Beech or Oak-maste, which sometimes succeed the Harvest, and near fats them, while those Pigs, that were farrowed near Winter, will grow stunted, lean, and scabby, and never make good Hogs. Thus a Summer-bred Hog may very well come in for a Baconer, by *Candlemas* or *Lady-day* at furthest.

To cure a Sow whose Wound gangers after Spaying. Mix Tar, Turpentine, and Hoglard together, and, while they are boiling-hot, pour it into the Wound. Hogs-flesh and Horse-flesh you cannot scald, or put any Liquor too hot into their Wounds.

Worms in Hogs, and how to keep them in Health, when they are obliged to drink putrefied Water in dry Summers. These voracious Insects are often found in the Intrails of Hogs, occasioned by foul Feeding, and Drinking of nasty Waters, which in Ponds, in dry Summers, are generally loaded with *Animalcula*, that consequently poison the Blood of the Creature, and breed these Devourers. An Instance of this happened to a Barrow-Hog, that my Butcher bought

bought
about
in ord
Day
thoug
Cluste
little
me, v
mine
or Mo
Crude
tity of
thrice
about
will a
Or yo
same
cleanse
him an
foul an
but th
ny of
of Ash
knew

O
ed, till
fands
throug
of the
from

bought out of a Farm-Yard, for twelve Shillings, about five Years ago, which he kept on good Pease, in order to fat him; but finding it eat some one Day, and none another, and got but little Flesh, thought it best to kill him, and then he found a Cluster of large-headed long Worms in a Gut, a little distant from the Maw; a Misfortune, he told me, was very common among Hogs; but is what mine are never troubled with, nor with the Garget or Measles, since I have given them the Powder of Crude Antimony, among their Meat, to the Quantity of as much as will lie on a Shilling, twice or thrice a Week, to each Hog, either when he goes about the Yard, or while he is fatting; and which will also procure him a good Stomach to his Food: Or you may give him the Powder of Madder, the same Quantity, four Times a Week, and it will cleanse his Blood, keep him in Health, and cause him an Appetite. It is reported, that, if Hogs are foul and measlesd, four Stillers Wash will cure them; but this I distrust: However, this is true that many of our Farmers, this Year, 1741, gave the Lee of Ashes among their Meat, as the best Thing they knew to prevent the Garget, Measles, &c.

C H A P. X.

Of Sheep.

O*F the Rot of Sheep.* The great Rot, in 1735, began chiefly about *Midsummer*, and continued, till *May* following, so general, that many Thousands of Sheep, in low and wet Grounds, died throughout *England*. The same I have to observe of the Summer 1738, which proved so wet, even from *April* to *November*, that it became almost as destructive

destructive a Rot as the other, with this Difference, that the Rot, in 1735, was a lean one, and this, in 1738, a fat one, because the former was sudden and violent, as the other was leisurely and slow. And though I have formerly made known a most famous antimonial Receipt to prevent the Rot, and even cure a Sheep that is but just touched with it, yet by Reason of the Difficulty there is of coming by the Regulus of Antimony, and the Dearness thereof, many have refused to try it: Since which I have been so happy, as to discover another that will infallibly answer the same Purpose, after much Study, Enquiry, and Traveling some Years.

An infallible Receipt to prevent the Rot. Put chopped Rue into a Pail of Water over Night, next Morning squeeze it out, and put in as much Salt into the same Liquor as will make an Egg swim: Of this give five Spoonfuls to a Sheep once in nine Days in the greatest Danger, in less, seldomer, according to Discretion, and let the Sheep go in the same Ground, be it ever so bad, and they will take no Harm; you may depend on it.

Remarks on this Receipt. There is nothing, I believe in Husbandry, that meets with less Credulity of its Success, than a Remedy to prevent the Rot in Sheep, because there have been so many Compositions prescribed for it, that only answer their End in Part, or that be too chargeable, troublesome, or difficult to come at their Ingredients. And this has the rather happened, on account of the Diffidence that is natural to a Farmer, beyond most other Men, who having neither Time nor Money to expend in the Trial of new Projects, and being biassed by old Customs, the most of any People under the Heavens, are perfectly shy of new Inventions, though they appear ever so reasonable, for Fear of Imposition. Therefore the aforesaid Receipt was calculated for their plain Apprehension, Cheapness

of Ingredients, and Easiness of coming by, which, if any Thing will tempt to a Trial, this must; and then they will surely find the promised Success, which may be readily proved, by singling out two or three Sheep only, that a Shepherd is seldom at a Loss to know, before they come to an absolute Rot, and then let their Case prove the Thing: Till then, let every one suspend their Judgment, and regard the following Account.

In the great Rot that happened to Sheep in 1735, there were two Farmers who rented five hundred Pounds each a Year, and kept three hundred Sheep a-piece. Now both these had a considerable Part of their Grazing-Ground lay at the Foot of a spewy Hill, adjoining to a River. Both said they knew a Remedy to prevent it in the worst of Ground, and therefore did not fear it; the Consequence was that he, that made Use of my Receipt, saved all his Flock perfectly sound, the others all rotted and died, and so did all others about them. The Truth of which is ready to be attested, and if any think fit to enquire of both Farmers of the same, they may know where they live, on Application to me. If then the rest of *Great-Britain* and *Ireland* meet with the same Benefit, I hope they will do me that Justice, in Requital, as to send me authentic Accounts of the same, by Letter Post-paid, directed for Mr. *William Ellis*, to be left at Mr. *Osborne's* Bookseller, in *Gray's-Inn, London*. That I may hope for some Gratification from the Public, for openly making known so inestimable and plain a Remedy, that must be worth an hundred Pounds, even to some single Vale Farmers, who keep large Flocks, and seldom escape a Rot once in three Years; but, to the Nations in general, of immense Value. Good God! tho' Man, through Inconsideration, call many of thy Works mean, yet what Food do the meanest of them yield to Multitudes of thy

thy Creatures ! Surely it was a wise Thought of the great and learned Lord Bacon : *Whatever God thinks worthy of Essence, Man should think worthy of Science.*

The Cause of the Red-water. The Rot and the Red-water are certainly the two most universal and most fatal Distempers belonging to a Sheep ; and therefore I shall offer to your Consideration the following Reasons, how the Red-water is first bred, in order to prevent it ; and, if taken, some choice Receipts to cure it. In the West of England, they allow it to be bred by Change of Pasture, by the Worring of a Dog, by the Ewe's being beat down and bruised by a Ram, by Driving too far at a Time, and by the Inclemency of the Weather. Others are of Opinion, it commences by a certain Bladder of Water under the Tip of the Heart, which scalds and damages it in Time, and thereby spoils the whole Mass of Blood. To break this Bladder, they chase the Sheep every Morning, with the Dog, about the Fold or Pen, which makes them strain ; and so does the Fear. The Eye of a Sheep, that is near overcome with the Red-water, will appear red round the Inside ; the Belly will swag with Water, if tried ; and the Skin look of a reddish Colour : Therefore, as a Sheep's Blood, at this Time, is mostly Water, some are of Opinion, that Bleeding, in this Case, is Death. On which Account, the following Receipts were invented to supply it.

The Warwickshire Way of curing the Red-water. The Cure here is, to put as much Salt in half a Pint of Spring-water, as will make it of an urinal Taste ; and, when all is dissolved, they give it in a Horn to a Sheep, as soon as ever they find it begin to droop, which it commonly does a little before they die.

A second, third, and fourth Way. Give such a Sheep

Sheep half a Pint of warm Milk from the Cow, and it will vomit the Sheep; and so will the salt Water; and therein consists the Cure, as they say. Others will give a little Flour of Brimstone, mixed with Urine. Others, beaten Grains of Paradise, mixed with Treacle.

To cure Sheep-bowe in Clover, or Lucern, &c. In this Month is the chief Danger of the whole Year for hoving Sheep in Clover; therefore have a Remedy ready, because, by an expeditious Application of such, many have been saved. For, whether this Misfortune happens in Clover, Lucern, or by a fresh Bite of Turnep-leaves, especially on their second Sprouting, make Use of the following Medicine: In this Month, or next, gather Plantain-leaves, and boil them in Spring-water; which strain, and bottle up for Use. When there is Occasion, give four Spoonfuls to a Sheep, mixed at the same Time with a little Vinegar; and also just cut the Roof of the Mouth, rubbing a little Salt on the same: This is practised by one of our best Shepherds.

A second. Open the Vein, that runs down from the Eye of the Sheep.

A third. But, if the Case is desperate, then job a Penknife a little Way into the Paunch of the Sheep, between the Huckle-bone and the short Rib, and clap a Pitch-plaister on the Wound; or, if you apply nothing, it may do well.

Drying Ewes. When a Lamb is taken off an Ewe, for Sale or Weaning, and you have a Mind to dry the Ewe, rub her Bag with some of her Milk; then mix Oil of Turpentine with some Tar, and anoint her Udder with it: But, I should have said, let her first be milked by the Hand, at twenty-four Hours End, and then immediately use the Ointment, which will directly turn her Milk, and thereby prevent Damage; but, if you neglect some

U

Remedy,

Remedy, it is a Chance if it do not garget. This same Mixture I use myself, and it is so powerful a Remedy in this Case, that it will answer, if applied to Mares, or any other Beast, for the like Reason.

Baiting Sheep. Now the Grass on Commons springs a-pace, and, generally, affords a good Bite; but, where a Common is not stinted, or the Number of Sheep limited, they are then apt to keep it always bare, and many Times obliged to go to Fold with half a Belliful, and then the Hunger, Rot, or other Misfortunes often ensue. For which Reason, a good Husbandman, who has inclosed Fields near a Common, will always be provided with Clover, or other artificial Grass, ready for supplying this Defect; and in this Month, after the Sheep have fed till about One or Two o'Clock, will take them off the Common, and *bait* them (as we call it) on such Grass, till they be drove to the Fold; by which Means they will dung and stale a great Quantity, always keep half fat, and be better enabled to withstand Distress; and for which Purpose I commonly sow Clover, or Thatches.

To make Ewes take Ram. In my next Monthly Book, I shall give you an Account how to suckle House-lambs, and supply the Markets all the Year with them, by three several efficacious Receipts, whose Ingredients will oblige the Ewes to take Ram at any Time.

To have fat Sheep and Beef at Harvest. The very Beginning of this Month, single out some of your old broken-mouthed Ewes, or Wethers, and put them into your Clover-field; or, if you have not this Conveniency, put them into your fallow Fields to sit against Harvest to serve your Reapers. This is a good Piece of Husbandry; for Beef, and all Meat, is generally sold dearer then, than at other Times; and, as the Men work hardest at that Time, they are in Course most hungry, and will with Pleasure
eat

eat fat Mutton, in any Shape of Dressing, especially in Pyes, in which this Meat, well seasoned, will keep some Time. It is likewise the Practice of some Farmers to fat a dry Cow for the same Purpose; and, if he cannot dispense with the whole Beast, a Neighbour will gladly come in for a cheap Share. In the dear Month of *May*, 1741, when fat Beef was so scarce it could be hardly got for Money, and it sold in *London* for Eight-pence a Pound, some Farmers bought Bulls, or old Cows, to fat thus against Harvest, lest they should be obliged to get further into the Butcher's Books, than they can out. I fattened three Ewes and a large Sow against Harvest, that did me great Service, in keeping off the extravagant Price of Butchers Meat.

Of Shearing Sheep. The latter Part of this Month, by some, is chosen for Washing and Shearing their Sheep; which is rather too early, and therefore seldom done, but on necessitous Accounts, as when fat Sheep are to be driven to *London*, or elsewhere on long Journeys; for, if their heavy Coats of Wool were to remain on at this Time of Year, by long Driving in sultry Weather, it likely might bring them under Surfeits, and kill many of them. Others will shear their fat Sheep, while they feed in their Meadows, as believing they will thrive the faster for it; for they can more boldly shear a fat Sheep than a lean one, because their being fleshy and in good Heart makes them able to resist those Wets and cold Winds, that would kill poor Sheep.

C H A P. XI.

Miscellaneous Matters in Husbandry, for the Month of May.

HOUGHING *Beans and Pease.* Now hough your Horse-beans and Field-pease, that were set and sowed in Ridge-lands, as many are between *Harrow* and *Aston*. The Beans in Rows at about eighteen Inches asunder, and at two Inches and a half Distance each Bean, were set by a small Dibber, that is made to enter the Ground so far and no farther, cross the Ridge-lands. Their Pease also they sow in Drills, made cross the Ridge-lands with a Hand-hough, at two or three Feet a-part, which are likewise to be houghed in this Month. Others set their Horse-beans, as above, in Broad-lands, as many are in their dry gravelly Loams between *Hempstead* and *Watford*, on one plowing up a Wheat or Barley-stubble. Some, again, will set them in this Manner, on new broken up Sward-ground. on one Plowing, to great Advantage; for, by this Method, the Roots of Beans and Pease are best shaded, and the Charge of Setting defrayed by the Seed that is saved. But no Way of Houghing comes up to the Horse-break, where it can be used, which, in this Month, is to be drawn between Rows of either the Broad, or Horse-bean, or Field-pease, or Kidney-bean; and then a Hand-hough immediately follows, to pull up the Mould closer to the Bean or Pea-roots, &c. than the Horse-break could. But, where these Operations are not performed, I know a Farmer, that makes Use of the common Foot-plough, who draws it between the Rows of the Union blue, or Rouncival Grey-pea, which he sowed in Drills, at something above two Feet

Feet asunder, and it turned up the Mould on the Roots of each Row pretty well, but not so well as the double-breasted Foot-plough; then, as above, he made Use of the Hand-hough to perfect the rest.

Houghing with the Dutch Hough. But, besides supplying Houghing by one or other Sort of the Horse-breaks, now is the Month also to make Use of the Hand *Dutch* Hough, for its great Service in dispatching and cleaning a great deal of Ground, in a little Time, of Weeds, and keeping it fine and hollow. The Purpose of this Instrument is, to work between those Rows, or Drills of Wheat, Rye, Barley, Oats, Tares, Lentils, &c. when any of them are sown at ten, fourteen, or this Side twenty Inches Distance; for the Horse-break has not Room to be drawn between such narrow Rows. I know a Farmer that twice a Year employs no less than eight of this Sort of Houghs, to his great Advantage; and sows such Wheat, Rye, Barley, Oats, Tares, Lentils, &c. by the Three-wheel Drill-plough, and sows them closer, than he does Beans or Pease, on Purpose for Houghing between their Rows with these Hand-houghs.

The Benefit of houghing Beans. The Benefit of Houghing was more apparently seen this Year, than in many others, because the long, cold, dry Spring, and dry Summer, 1741, caused the Blossoms to dry and fall off, for Want of sufficient Moisture, and even killed many a Bean-stalk, after it had got Pods on. About *Pinner*, near *Harrow* in *Middlesex*, they were more than ordinary sensible of this. Those Horse-beans, that were drilled and houghed, were good Crops in general; but those, that were plowed in, or harrowed in, were, for the most Part, as bad. Here they sowed their Horse-beans in Drills, at two Feet asunder, which were houghed twice in all, for four Shillings an Acre;

cre ; and one Man, in this Work, would hough over an Acre in one Day, for which he had two Shillings ; and the same, when he houghed them a second Time : However, by one Fault is known how to prevent another ; and they are now resolved to sow all their Beans in Drills, for the Future.

Of blooming Wheat. The Winter, 1733, was so mild, that Wheat grew all along very rank and long, till it shot into a small Ear, as it always does in this Condition : The same, when Wheat looks whey-coloured, or yellow-flagged, as it did all *May*, and till it shot, and after. Then it is a true Sign it will be small-eared ; and this last Sign being occasioned by Wets and Cold, as it happened all that *May*, and till about the Fourth of *June*, it was so ominous of a bad Blooming-time, that the Farmers would wager before-hand, the Wheat did not bloom well ; and it accordingly happened ; for the Bloom came out but slow, and in a small Quantity, and that was several Times washed off, which was a sure Token the Wheat-ear would not kern well, nor did it : Whereas, the Year before, the Bloom came on the Ear, as soon almost as the Flag burst, and was very thick on it, which brought on a plentiful Crop ; for, unless Wheat blooms well, it cannot kern well. In 1741, there was as fine a Bloom as ever was seen, from the first to the last, and, accordingly, a most plentiful Crop ensued ; which caused the Market to fall ten Shillings in five Bushels, in about one Month's Time, just before Harvest.

How a Barley-crop suffered by the Ignorance of a Ploughman. A Crop of Barley was sown in *March*, 1740-1, where a Turnep crop had been just before eaten off a stiffish, moist, level Loam. As soon as the Ground was cleared of the Turneps, the Farmer laid fourteen Cart-loads of Dung on one Acre, which was spread, and ploughed in with the *Hertfordshire*

fordshire Wheel Fallow-plough; then he harrowed all plain, and sowed and harrowed in his Barley. Now here was such a Mistake committed, as lost half the Crop; for the Ploughman, being a young Novice in the Art, ploughed the Sheep and Horse-dung in so deep, that the Roots of the Barley had little or no Benefit of them, because this stiff Ground turned up in large heavy Furrows, and easily buried the Dressing; so that, at the latter End of this Month, the Barley looked with such a sick, pale Countenance, as foretold there would not be above half a Crop, for Want of that Assistance, which a skilful Ploughman would have given it, by ploughing in the Dung more shallow. Or, if he had first hacked the Ground, then harrowed it plain, lain on his Dung, plowed it in shallow in Broad-lands, and then harrowed in his Barley, it might fully have answered the End; because the Ground, by this, would have been made fine and hollow, and the Dressing kept near enough the Surface, for the Roots of the Barley to strike easily into. Or if he had ploughed it the first Time shallow into Broad-lands, then harrowed, dunged, and ploughed it a second Time a little deeper, he would have turned up the Dung near the Top, and greatly improved the Crop: Though the most common Way is, to give such Ground only one Plowing, and harrow in the Barley-feed; then they spread their short rotten Dung on the Top, or fold on it, or lay twenty Bushels of Soot over each Acre; and, if Rain succeeds in Time, it commonly produces six, seven, or eight Quarters of Barley on an Acre.

A Barley-Crop lost by Sowing Mow-burned Seed.
An old Farmer near me committed this Mistake; rather than to buy good Seed, he made use of his own Mow-burned Barley-Seed, and sowed it in *March* all over a Nine-Acre Field whose Soil was a loamy Chalk; but, finding it, in *May* 1741, come up with
a very

a very weak Blade, foresaw it would prove a defective Crop, which to cure, he first turned his Store-Sheep in to eat it up, and, about the Eleventh of this Month, he was plowing the same, to sow it over again with better Seed. — Happy is he, who, by others Harm, learns to beware.

A poor Barley and Wheat Crop. By the great Frost of 1739, the Ground was made prodigious hollow, inasmuch that one Plowing, afterwards, did as much Good as two or three at other Times; and though a great deal of Land received the Benefit of being thus easily brought into a fine Tilth, yet it proved a Fault in many others; for it let in the Frost to the succeeding Crops of Wheat, and, where the Ground was not well manured with hot Dressing, the Crop suffered. On the Fourteenth of July 1741, I saw a Crop of Wheat and Barley grow together. The Reason was, that the Frost, getting into the Ground, so chilled the Roots of the Wheat, that the Owner thought to prevent its Damage by harrowing Barley-Seed in over all the Ground; but there proved neither a good Crop of Wheat nor Barley, because, the Earth being of the hurlucky Nature, or of a close whitish Loam, it was too hard to let in and cover Barley-feed enough for a Crop. Yet the very same Practice succeeded extremely well in many of the ridge half Acre Vale Lands the Spring before this, because this, being a black Mould, was so much shattered and loosened by the great Frost, as to let the Barley-Seed be freely harrowed in and covered; whereby an excellent Crop of Barley, with a Mixture of Wheat, was mowed off. But I remember one silly Gentleman lost a great deal by obliging his Servants to tread down the Barley to come at and reap the Wheat, and then to mow the Barley, whereas, had he mowed all together, he had acted like a true Farmer.

A Field of Wheat weeded by Sheep. In our Chil-

turn

turn Country, a Farmer having a Three-acre Field of Wheat come up very well on the ridge Part of two-bout Stitches, and not in the Thoroughs, the Weeds grew so thick, that almost choaked the Wheat. Upon this, the Farmer turned in sixty Sheep in this Month, even when the Wheat was upon the Spindle, and had not shot into Ear; the Sheep took their Paths along the Thoroughs, like so many discreet Weeders, and missed biting the Wheat for the Sake of the Weeds; by which they so cleared the Field, that he had a better Crop than his Neighbours, who, before this happened, were like to out-do him. — But this was a bold Venture, and such that few would run the Risque of, did not Necessity prove the Incentive.

The Benefit of dressing Land with Urine. This is allowed to be one of the best of Dressings for most Vegetables, if made use of at a right Time, and in a right Quantity. A Farmer found it so, when he used it so late as in this Month on his Wheat, which he sprinkled out of a Garden Watering-pot, over his Wheat, as it grew in two-bout Stitches; and for this, and other Purposes, he saved it in a Barrel which he used to carry into the Field in a Cart, and there drew it out into his tin Watering-pot. But another Farmer had a better Contrivance; he kept his Chamberlie in a great Oil Jar, that is to be bought at the Oil-Shops in *London*, for about four Shillings a-piece; when it was full, he put the Pifs into a Barrel in a Cart, and, in *January, February, March, April, or May*, would let it out into a wooden long Trough, bored full of little Holes, that lay across the Arse of the Cart, by which the Pifs would run gradually out over a great deal of Wheat in a little Time; and it was observed, that this Farmer had the best Wheat in the Country on his chalky Loams, near *Tring* in *Hertfordshire*. Another Trial was made by a Groom,

X

who,

154 *Miscellaneous Matters in Husbandry,*

who, by Way of Curiosity, had a Mind to try the Effect of Horse-piss, and therefore sprinkled it over some Wheat but once, that grew in two-bout Stitches near *Nettleden*, which caused it to come on so rank that they were forced to cut it down several Times, and at last it run so much into Straw, that there was hardly any Corn. Another Trial was made with Chamberlie, by a Gentleman, who strewed it over the Roots of a Wall-Fruit Tree to make it prolific, but instead of that it killed it; however, Part of the next Tree's extreme Roots having received some of the Piss, it caused it to flourish in a furious Manner, and bear more Fruit, than ever it did before. Another Proof of the good Effect of this was annually experienced by a Gardener, who, having but a little Spot of Ground, enjoyed the greatest Crops of Kitchen-Greens in all the Country about him, by the Help of Piss, which was his only Dressing; and which he every Year saved and sprinkled over all his Land, and it caused his Onions, in particular, to come early, and grow into very large Roots. Another Effect of Piss was on the Roots of a Vine, which growing at the Back-Door of an Ale-house, the Guests used to piss on the same, which produced such a Multitude of large Bunches of Grapes, that the like was seen no where else in the neighbouring Parts. But, by the Way, let me give this Item in the Use of Piss, that it is best made Use of when the Wheat has got a little Head, because, if it should burn the Roots, the Shade of its Head will help to recover them. In Grass Grounds, it should be sprinkled in *January* and *February*.

The great Benefit of dressing Ground with Dogs-Dung. At the Sign of the *Bell* at *Dagnal* in *Bedfordshire*, lives a Victualler, who owns about one Acre of Ground near his House in a common Field, whose Soil being a gravelly Loam, it has been sown
Time

Time out of Mind every Year, without making it fallow, as the rest of the Farmers do in the same Field, and so lose every third Year's Crop, which this Man enjoys by inclosing his Piece of Ground with moveable Hurdles, and dressing the same with Dogs Dung, which is accounted the next best Dressing to Pigeons-Dung; and as he breaks Setting-dogs, and is a Game-keeper, he keeps such a Number of these Animals, as return him a considerable Quantity of this Dung every Year, which enables him to sow Horse-beans, Wheat, Barley, and Pease alternately: And this Year, 1741, he had one of the best Crops of Wheat, that succeeded his last Year's Bean-Crop. And what was very particular; when most Bean-Crops missed throughout the Nation in 1740, he had a most plentiful one on this dry gravelly Soil, and which I was an Eye-witness of. And thus I know a Gentleman, who keeps a large Pack of Hounds, have the greatest Crops of Grain, wherever he spreads their Dung.

Of the new invented round Wire-Worm Sieve. This is a very curious Machine lately invented, and is very much to the Honour of the ingenious Artist, whose Name I forbear to mention, as having no Leave for the same. It is about nine Feet long, large at one End, and smaller at the other, worked by two Men, one of which is employed by turning it with a Winch, or Handle, like a Grind-stone, and, while it is turning round, it is constantly supplied with more Corn out of a Loft by a Spout, which, by Means of this Worm-fashioned roundish Wire Screen, runs out in a fine clean Manner, leaving all, or most of the Seeds of Weeds, and light offal Kernels behind; and this it will not only perform exquisitely fine and bright by the Twist of its long Worm Shape, but it will likewise dispatch great Quantities in a little Time, to the more than ordinary Benefit of the Farmer; for, let his Wheat, or other Grain, be

156 *Miscellaneous Matters in Husbandry,*

ever so good, yet every Husbandman knows, that if any Burrs, Crow-Needles, Cockle, Darnel, or other Trumpery, is mixed with it, it will meet with a Price accordingly at Market: However, it is too common a Misfortune, and which a Farmer is the more liable too, as he generally changes his Servants every Year; so that, if he had a good one this, he may have a bad one next, who knows not how rightly to use a Knee-fan, or Wind-fan, to throw Corn, or to sieve or clean it by the tall, standing, sloping Wire-screen; or who, through Laziness, will not fan it nor throw it, or sieve, or screen it often enough. All which ill Properties are here avoided; for this Screen alone, after the Corn has passed through the Cavin-sieve, and flung out of its Chaff, will so truly clean it, as to make it fit for the nicest Buyer. In short, here is more Labour saved, a great deal more done in a Day, with less Charge, and much cleaner, than Corn is done in the present common Way. The Reason of which is plainly demonstrated on Sight of its Working, when the Beholder may observe the Corn passing through the several Turnings and Worm-twinings of this round Wire-screen; in which, if the Seeds of Weeds, and light underline Corn, miss dropping through in one Part or Twining, they are forced through the next, or some other, before they get to the Screen's End. I have only to add, that this Screen will likewise, by its several violent Turnings and Tossings of Barley, exquisitely well break off the Ails of this Corn, beyond Treading and Thrashing it, which, according to the old Fashion, we are forced to do, before we can clean it of its Nuisance. This, therefore, is to give Notice, that I will furnish any Person with it, if, by a Letter, Post-paid, directed for me to be left at Mr. *Osborne's*, Bookseller, in *Gray's-Inn*, they will send me Encouragement for the same.

A far-

A far-
before w
between
bout the
tiguous
most ex
reported
eight B
common
one Acr
tity cost
Pence a
as twen
thus to
both of
mage o
by Rea
tues an
Month
Letter,
forth E
the M
has ke
Disguis
To
be a r
Corn,
will ro
were r
is hard
may
Weed
them,
will b
Dr
did w
it ove
he ha

A farther Account of Peat-Ashes. To what I have before wrote (at Page 68) on Peat-Ashes, I add, that between *Hempstead* and *Watford* in *Hertfordshire*, about the Year 1738, a low Meadow, that lies contiguous to the River's Side, was broke up, and a most excellent Peat discovered, not inferior (as is reported) to that of *Newbury* in *Berkshire*, because eight Bushels of these, which are equal to twelve common *Winchester* Bushels, are sufficient to manure one Acre of Corn-ground with; and all that Quantity costs but five Shillings and four Pence at eight Pence a Bushel, and it is said to do as much Service as twenty Bushels of Soot. A cheap Dressing indeed, thus to return great Crops, if the Season is kind, both of Corn and Grass, besides preventing the Damage of Insects. But I shall say no more of it, here, by Reason I shall give a long Detail of its great Virtues and Benefits to Farmers and Gardeners, in the Month of *July*; where I shall insert the Copy of a Letter, written to me by the Proprietor, setting forth Examples of its transcendent Qualities, for now the Mask is taken off it, which for some Years past has kept the Cheapness and Value of Peat-ashes in Disguise, for avaricious Ends.

To destroy the Potatoes as a Weed. Though this be a most useful Plant, yet when Wheat, or other Corn, succeeds a Crop of them, as is often done, they will rot the Weed, and damage much Corn, if they were not totally destroyed before its Sowing, which is hard to do; however, what was wanting then, may in a great Measure be supplied now, by the Weed-hook, which, if carefully employed, will kill them, for, if they are pretty high in their Haulm, they will bleed on Cutting, and die.

Dressing Land with old Thatch. This a Farmer did with what came off an old Barn, by spreading it over a gravelly loamy Field, immediately after he had fallowed it in Broad-Lands, where it did a great

158 *Miscellaneous Matters in Husbandry,*

great deal of Good, by keeping in the Spirit of the Ground; afterwards he plowed it in on the first Stirre in Broad-lands again, and so on till he sowed the same Land with Wheat, for, tho' this is a tough Dressing at first, yet, by the short Nature of the Gravel, it will be soon reduced into a much shorter Body, and do considerable Service to the Wheat-Crop.

The Scarcity of Provision in 1740. The last Winter, 1740, and this Spring, 1741, in *Cheeshire*, Hay was sold for Half-a-Guinea a hundred Weight; and as this County has not a great deal of plowed Land, Stover was so scarce, that five or six Cows have been seen to lie dead in a Farm-yard in a Morning. And Wheat, in *January*, was sold for twelve Shillings a Bushel, and Barley eight, so that the poor People, in many Places, would diligently attend a Neighbour's Brewing for the Grains to eat with Salt, which Poverty occasioned the Death of many. So in *Wales*, and *Devonshire*, &c. great Numbers of Horses, Cows, and other Cattle died for Want. The same Reason made Horses sell at a most low Rate in the North, and forced many Farmers, that never did before, to eat Barley-Bread, to sell the little Wheat they had, to pay their Rent; while some others, whose Land was of the stiff Sort, and lay sheltered from the North-Wind, got Abundance of Money. Yet Providence was so good, that on the twenty-third of *July*, 1741, Wheat, of the best old Sort, was sold in *Hempstead* Market, for four Shillings and six Pence a Bushel.

To prepare human Ordure for dressing Land. For Want of knowing how to manage this hot Dressing, it has discouraged many from using it on this Account; therefore, I shall here make known a Gentleman's Method in the Improvement of it. I think it was, in this Month, he had his House-of-Office emptied, and the Soil carried into a Hovel-place,

to remain under Cover in a Heap, which as soon as done, he had it all covered with Mould, where it lay some Time, till the Dung got dry. Then he got more Mould, and Chalk, or Lime, and had it mixed altogether with the Shovel, and let it lie some Time, when he had it turned and mixed again, and, by this, he got it into a dry and almost powdered Body, fit to sow out of a Seed-cot; and, accordingly, he had it sowed over his Wheat in the Month of *January*, by a Man's Hand, as we do Soot out of a Seed-cot and it produced wonderful Crops. By this Method, the common Objection, that human Ordure, laid on Land, will breed Nettles, is proved fallacious, when it is laid on as it ought to be: Indeed, when it is put thick on Land as it comes out of the Sink, and no more done to it, I own it is apt to do it: But, when cured after this Example, it is one of the best of Dressings, both for Corn, as well as Grass-ground. But in Case there is a Necessity for using this most fertile Dressing on Grass-land, and the Owner has not Time to cure it, it may be done thus: A Farmer, in this Month, got it out of his Privy-house, by first mixing Straw with it, and then it would admit of shoveling and loading it into a Cart, which he drew into his Field, and laid it in Heaps; then with Three-tin Forks he spread it about, and let it lie till it was thoroughly dried. On this, he had a Gate bushed, which he drew with a Horse, and it so scratched about the powdered Dung, as to make it enter into the Roots of the Grass, which, by the Help of several succeeding Showers of Rain, produced a laid Crop in the Summer 1741. And it is this Dung, that is so much esteemed by Gardeners, that many of them prefer it to all others, for nourishing an Onion-Crop; and which, they say, makes the largest Roots of any Dung whatsoever. So, on Grass-ground, it produces the excellent Honey-Suckle

160 *Miscellaneous Matters in Husbandry,*

Suckle Grass, which it will nourish and maintain several Years together, in plentiful Crops, as I have experienced.

A secure Way to get a good Crop of Clover-Seed.
About the very Beginning of this Month, shut up that Clover Field that you have been feeding, and design for Seed; for, by so doing, you may have your Clover-feed earlier than in the common Way, which will give you the better Opportunity to enjoy a large Seed, and get it in full ripe and dry: Whereas, if you stay till it is fit to mow for Hay, before you shut up the Field, the seedy Head of the Clover is generally so late ripe, that the Crop is often spoiled by Rains, or cannot be got dry, for Want of Heat enough in long Days. And indeed, this was the chief Reason, why so little Clover-feed could be got found in the Year 1739; for, when the Clover was to be mowed for Seed, a wet Season continued so long, that most of it was sprouted and spoiled in the Field; insomuch that good Clover-feed has remained dear ever since; and all, because they must needs go on in the old Way of mowing their Clover first for Hay, before they shut it up for Seed. I have convinced several of this egregious Error by Word of Mouth, but I hope I shall many more, by the Help of my public Pen, and, most of all, those who are to save their Crop of Clover-feed in inclosed Fields; because here they have not that Opportunity of getting it dry, so late in Summer as *September*, as they have, who mow it in open Fields, as most do in the West Country, from whence *London* is supplied with great Quantities of this Seed, which, for its great Service to the Farmer, is called *the Mother of Corn*; and therefore, without sowing this best of artificial Grass-feed, there is no such Thing as being a compleat Farmer in the Management of an inclosed

inclosed
Plough
The
as I ha
it nece
plough
lands;
it has b
is calle
gather
wheel
well in
and is
in three
nar, R
Places
at pref
would
this So
to be se
is that.

of

IN t
nep
draw a
fat off
same,
which,
made t
Manag
this eff
Heart
tion, th

inclosed Farm, where its Fields are kept under the Plough.

The Two-wheel Wood-chip Plough. This Plough, as I have not mentioned it before, I have thought it necessary to do it here, for its great Usefulness in ploughing wet or dry Ground in three or four Bout-lands; which it does the best of all others, because it has but one Mortise in the Share; and therefore is called by some the *Creeper-plough*, that does not gather up Dirt, and clog behind, like our Two-wheel *Hertfordshire* Plough; but works extreme well in all Weathers, when a Plough can be used, and is allowed to be the best for ploughing Land in three and four Bouts, which they do about *Pinner*, *Rickmansworth*, *Chaffont*, and some other few Places; for this excellent Plough is not much known at present, and therefore not in much Use; but I would recommend it, as the best of Ploughs for this Sort of Work, for, if a Plough may be said to be serviceable both in Low and High-lands, this is that.

C H A P. XII.

Of Turneps; a farther Account of them

IN this Month, some of our Farmers sow Turneps for an early Crop; some sow them to draw and sell; others, that they may be able to fat off some of their Sheep betimes, and, by the same, prepare their Ground for Sowing Wheat, which, by such early Sowing and Feeding, is often made to turn to a very good Account; but then the Management must be accordingly. Now, to do this effectually, such Ground ought to be in great Heart to forward the Turnep-crop with Expedition, that such Turneps may be eaten off by *Albaltide*,
Y

lows-tide, or sooner, and the same Ground sowed with that Golden Grain, Wheat: And, for this Purpose, it was the usual Practice of a Farmer near *Amersham*, to sow in this Month the Seed of the *Dutch* white flat Turnep, that, in favourable Seasons, would be fit to make Use of in *July*, *August*, or *September*. The next Sort, he sowed, was the Green Round; then the White Round; next the Red Round; and, last of all, the Tankard, or Sugar-loaf Turnep-feed, whose Turnep grows with great Part of their Roots above-ground; and therefore, in *December*, *January*, *February*, or *March*, the Sheep can easily come at them in snowy Seasons. In this Month, four Pounds of Turnep-feed should be sown on one Acre; because the Fly, being now as busy as at any Time, and having less Food, preys more furiously, than in the latter Season; for at *Midsummer* we sow a Pound less on that Quantity of Ground, and afterwards but two. If the Ground is hard, give your Harrows the Load of a large Pole; but, if fine, you cannot harrow the Seed in with too light a Harrow. A Farmer not being able to get Houghers in due Time, he, to prevent the Crop Setting, or, what we call, *Burning*, drew his Harrows over them three Times in a Month, with ten Days Intermision between each Time, and by this preserved his Crop in good Order, till he got Houghers. But this is better done by the Sheim, which is a triangular Instrument with several fixed iron Feet, or Houghs, in the same, as I shall describe hereafter. Turneps, tho' sown thick, never set sooner than three Weeks, but, after that Time, they will heat, and force one another to grow; and then, if they are let alone, will set, and have little or no Roots to any Advantage. But more of this in next Month; where I shall very much enlarge on the Propagation of this excellent Root, by giving the following Account of it, *viz.*

— Plough-

Of Making and Repairing Roads. 163

—Ploughing for a Crop of Turneps. A second Way. A third Way. A fourth Way. Ploughing a wet Dung Piece of Ground the best Way, for a Crop of Turneps. Turneps got on a Fallow. An Oat-stubble ploughed for Turneps. A Pea-stubble ploughed for Turneps. Another Way. To prepare a Bean-stubble for Turneps. Plowing and Sowing Turnep-seed in Vale-grounds. Plowing and Sowing Turnep-seed in three or four Bout-lands. Sowing Turnep-seed in Drills. Sorts of Turneps, and their proper Soils. Of good and bad Turnep-seed. To prove the Goodness of Turnep-seed. Sowing Turnep-seeds. Houghing Turneps. The Way of saving a Crop of Turnep-seed. The Way of cleaning Turnep-seed. The Benefit of my Receipt for keeping off Crows, Rooks, and other Birds, from damaging the Turnep-seed Crop. Another Way to save a Crop of Turnep-seed. Ploughing up a Pea-stubble, for Sowing Turneps a third Way. And, in July, I shall present the World with an excellent Receipt for preventing the Fly's damaging young seedling Turneps, by a Powder mixed with the Seed three Days before Sowing, for Two-Pence an Acre Charge, as it is practised by some Farmers and Gardeners. And, in another Month, I shall insert an invaluable Receipt to keep off the Slug and Fly from Turneps, Cole, Weld, and many other Things; and that if it rains a Month together; for it is no Powder, and which even the Gardeners about London are, at this Time, Strangers to.

C H A P. XIII.

Of Making and Ripairing Roads.

TH E present Turnpike Improvement of Roads, when it is honestly managed with good Judgment; is certainly of prodigious Service to this Na-

164 *Of Making and Repairing Roads.*

tion in general, by contracting great Quantities of Heath, Donny, and other common Grounds, into a narrow Compass; saving Horse-flesh, Time, and Labour; travelling securely with Wheel-carriages; stopping stray Cattle, and, sometimes, a High-way Collector, with many other Conveniencies; most of which were enjoyed to great Advantage in the several Vales of *England*, where before, in some Winter-seasons, their Roads were formerly so bad, as even to prevent the Farmer's Carrying his Corn to an advantageous Market.

First Way to mend Roads. All Market-roads are to be kept in good Repair; and, to do this in the cheapest and best Manner, there are several Ways practised, according as the adjacent Country can furnish proper Materials. About a Mile from me, there were two different Roads made good, that, before, were in a very bad Condition, as being both of a loamy, clayey Nature, and lay almost flat; which, by standing Waters, and the often Tread of Cattle, became deep and miry: These Roads were undertaken to be repaired in this Month, that they might have the greatest Length of the Summer to dry and settle them. To this Purpose, there were several Teams invited (mine for one) from adjoining Parishes, by Way of Gift; some whereof came with their pecked shared Foot-ploughs, others with Wheel-ploughs; and began, in the Middle of the Road, to plow and ridge up one Thorough, or Furrow, as they do the half-acre Vale Ridge-lands; and here one Plough came after another, till the Ground was gathered up six or eight Times, whereby the highest Part was raised, at least, two Feet above the common Level of the Earth, for Waggons and other Carriages to travel dry in the wettest Times. But, as this had no other Amendment, than what the Plough gave, it did not last a great while in a good Condition.

A second

Of Making and Repairing Roads 165

A second Way. The other Road was made thus: The Ground was ploughed in the Manner the last was, by being gradually gathered, or ridged up, but most of all in the middle Part of the Road, to a little more than the Breadth of a Waggon. On this, a Foundation of large Flint-stones was spread all over the same, and Chalk over all; by which the highest Part was raised two Feet above the common Level of the Ground: And, after some Rains had fell, the Horses and Waggon pressed it so tight, that it became like a Rock, but apt to be slippery in wet Weather: This was performed at the Charge of the Lord of the Mannor.

A third Way. Where a Road lies low, has any thing of a Fall with it, and a Water out of a Pond or River can be commanded to be ran over it; such a Road, when got muddy, may be presently washed clean by the Run of such Water; and so again, as often as it becomes foul, as it is now done in several Parts of *England*, where such a low hollow Road is kept with a sound, hard, clean Bottom, by only such timely Waterings. A clear Example of this may be seen a Mile or two off *Dorking* in *Surrey*, where formerly was one of the worst Roads in that Part of the County, but now one of the best; made so by the Help of an Engine, placed in a little House built on Purpose for it, which raises Water out of a low Ground, and carries it over this Road.

A fourth Way, is done by ploughing up the Ground into a very high Ridge-land, and then laying on a Covering of Chalk, and on that, a Coat of Gravel, which will become one of the best Roads, provided the Waters do not overflow it too soon: if they do, it will be poachy a long Time after. But, for a bye, narrow, high-ridge Road, I never saw a better than that gravelly one, situated between *Hendon Church* and *Edgware* in *Middlesex*,
and

166 *Of Making and Repairing Roads*

and runs about three Miles in Length, on the Back of the great *London Road*.

A fifth Way. In low boggy Grounds, that lie very watery, where they can't be drained off, lay large Faggots of Bush, or Elm, one Layer of them crosse another, and, if Occasion be, three, or more Feet high; and then with, or without, some Earth over all, coverall again with large Stones crosse each other, two Feet thick, that have one Side pretty even: Then with, or without some Gravel over them, a good Road may be made, as it is lately done between *Aylesbury* and *Winslow*, in *Bucks*, where their sloughy Roads are now made very pleasant ones. Small Faggots of Bush, or other Wood, or Broom, or Whins, or even Bundles of Bean-straw, are the most ready Amendment, that can be made Use of, with, or without, Gravel over them; but Stones over them are best, in Case of sudden Damage, which often happens in Winter, by the Wash of Rains and the Gulling of Wheels; I say, these may be made very serviceable, by laying them crosse a Rut, till better Materials can be had: but, if Faggots be laid long-ways, they do little Good. In short, where a Road lies wide and free of the Drip of Trees, it may be kept in good Repair, with Stones, Gravel, Chalk, Water, &c. at a small Charge: But where these Impediments are, the Owner, it is true, enjoys a quicker Growth, than ordinary, of his Trees, but, I am sure, it is almost a constant Damage to High-ways, where they are narrow; therefore it is a Pity there is not a Law to restrain their Growth so near High-ways. Likewise, where Hedges are suffered to stand twelve, fifteen, or twenty Years, for the Sake of obtaining a great deal of Wood, they do much Damage, not only by preventing the Drying of a narrow Road, but also by annoying Travellers, exposing them to the Loss of their Eyes, and causing Coaches, Waggons, and other

other loaded Carriages to draw the heavier. Such Owners of Hedges should be obliged to trim them up, by cutting their Outsides in *May, June, or July*, with that we call in *Hertfordshire* a *Mawbark*, which is a Piece of an old Scythe, fixed in a long Handle of Wood, that a Man may reach their Tops with, as he stands on the Ground.

To mend bye, narrow Lanes, or stotched Gate-ways in Vale-grounds. First throw of the loose Dirt, till you come to somewhat a harder Bottom; then lay Black-thorn Bushes, as a Foundation, and, on them, either Chalk, Hurlucky-stones, Sand-stones, Flints, or Gravel, and it will secure it many Years; and it is now the Way, that is made Use of, in the hither Part of the Vale of *Aylesbury*. And, for Gate-ways, if there is a Ditch on each Side, a hollow Tree, or four-square Boards, is proper to be laid along under the Bush and Stones, where an Arch of Brick or Stone cannot be afforded.

How a boggy Piece of Ground was mended. Mr. *Stoughton* says, that Sir *Christopher Wren*, being the King's Surveyor, found the Way next the *Privy-Garden*, between the two Gates at *Whiteball*, to be extreme bad, and it had baffled his Predecessors, by Means of being an ill Earth: Upon this, he dug it down two Feet, and there pitched and rammed it well with Stones; upon that he threw what came out, and pitched it again substantially, and it remains firm to this Day, only must be mended what the Coaches wear out. — The Road out of *White-chapel* was first made good by laying Trees a-crofs, and then Earth, which, with Ditches made on each Side, mended it for the present; and, to keep it so, they laid a high Row of large Gravel, which is forced in, and keeps that Part highest to throw off the Water; and the Dirt is pressed into the Ditches, which are every Year cleansed, and so likely to endure for ever.

C H A P. XIV.

Of Horses, Mares, and Colts,

GR A Z I N G *Cart and Plough-horses.* In this Month, our Draught-horses are generally turned out to Grass, and, in our inclosed *Chilturn*-fields, we commonly feed them on Clover, which is reckoned a foul, rank Grass, in Comparison of some of the best natural Sort ; but, as it is of a more warm and hearty Nature, it makes the Beast less liable to take Cold, and do his Work the better : Yet, at first, we are careful in turning out our Horses, by letting it be the Middle of the Day, before they go out of the Stable ; and then, if the Weather is cold, or wettish, take them in every Night, till the Season becomes more agreeable ; and then, about a Week after they have been out, some bleed them : But, for the most Part, we daily work our Horses, under the Feed of this Grass, or Lucern, by taking them up every Morning throughout the Summer, and give them a Bait of Corn and Chaff for two Hours before they are collared ; and the same, after they come from Cart, or Plough, which fastens their flashy green Meat, and causes it to yield good Nourishment. In our *Chilturn* inclosed Fields, we fetter or logger every Horse, if we apprehend they will be unruly, and break out ; but, where no Danger appears, they go loose and free. After the same Manner, we turn our Horses into a Field of green Thetches, where they will equally feed and thrive, as they do on Clover, or Lucern.

A second Way, is done by daily mowing and giving Clover, Thetches, or Lucern, on Racks ; and, though it is not commonly practised, yet may *St. Foyne* be mowed green, and given to Advantage, in the same Manner. Others sow the three Grasses

of

of Clover, Raygrafs, and Trefoil, altogether, and cut it for Cattle's eating it green in Racks, and they will not only keep Horses in Health, but fat them, or, at least, keep them in Flesh and in Heart under their Work, and, at the same Time, produce Abundance of Dung with the Help of Straw. In this Management many Farmers are not careful to bleed their working Horses above twice a Year, and that is commonly at *Christmas* and a little after their Going into, or being fed with artificial Grass in Racks, because, by their constant Working, the Grossness of this Feed is prevented breeding Yellows, Surfeits, Farcies, Staggers, and other Ails, which often happen by too great Plenty of Blood and too little Work. This Method of mowing Clover, or Thetches, and especially the latter, may be done in Vale-Ridge half-acre Lands, as well as in *Chilturn* inclosed Fields: And therefore, where convenient Ground lies near enough the Stable, that Farmer who neglects Sowing Thetches, or Clover, for this Purpose, in my Opinion, may be justly called a bad Husbandman.

A third Way, is done mostly in the Vale Country, where their Land lies chiefly in the common Field. There, for Want of Inclosure, they are forced to stake their Horses with Bassen Ropes, on their Grass Baulks, which generally lie as Head-lands to their plowed Grounds. But this Way has its bad as well as good Effects; for, by this Confinement, the Horses tread down Stale and Dung on, and spoil a great deal of Grass, which they refuse to eat, till they are brought on the same a second Time some Weeks after, that the Wash of Rains, and the Purity of the Air, may sufficiently sweeten, and return another good Bite. By this also the Horse is exposed to the Torment of the Bry-Fly, which most vehemently draws Blood, and torments the Creature, to the Hindrance of its Thriving; and

Z

what

what is extreme dangerous, a Horse, in the Night, may break loose, and do a great deal of Damage among common Field Corn. But Necessity has no Law: However, there is this Conveniency belonging to it, that, by such Staking, the Horses Dung and Stale are employed and treaded in as Dressing for enriching the same Ground against another Crop; and this Management is not only performed on Grass-Baulks, but also on Pieces of Thatches.

A fourth Way is performed by giving the yellow Turnep in the Manger, or letting them feed on them in the Field; but the former Way is mostly in Use, as they do in several Parts of *Suffolk* and *Norfolk*, where, if they are sown in well-dressed, rich, sandy Ground in *March* or *April*, may, perhaps, be ready to pull the latter End of this Month, or Beginning of next, and may be continued, by alternate Sowings of this Seed till *Michaelmas* following, which, in their sandy Land, becomes a pure, sweet, and very nourishing Root, as being somewhat of the cannotty Nature, for feeding and keeping the Horse in Flesh and Heart, insomuch that they will work very well under this Food, both at Cart and Plough, for it will supply the Place of both Oats and Hay. And it is likewise with this yellow Turnep, that they fat great Numbers of *Welch* and *Scotch* Runts every Year in these two Counties, both in the Cow-house and Field, and which, for its Sweetness, is often boiled in the Pot for Family Use: Therefore, whoever has a Mind to propagate this excellent Root, may be furnished with its Seed at the *Three Wheat-Sheaves* near *Billingsgate*, where are great Variety of most Seeds sold; but I have a great deal more to say on this Subject, when I write of Winter-keeping of Cart and Plough-Horses.

Grazing Saddle-Horses. Some are so curious in the Management of Saddle-Horses, before they are turned

turned
fore-h
made
of D
Ale,
then
mong
fection
Apot
A Da
by I
which
doing
Pores
Let
him
Augu
gins
Days
temp
Rank
a H
solve
whic
Hori
after
and
Coro
Poun
pour
brew
Seed
Wat
A N
skinn
are a
betw
may
this

turned out to Grass, as to bleed them a Week before-hand, and the next Day give them a Drink made of Diapenta, as follows: Put two Spoonfuls of Diapenta Powder in a Pint of sweet Wine, or Ale, and brew them well together; or now and then give the Horse one Ounce of this Powder among some Manger-meat. It takes away all infectious Sicknefs, and creates an Appetite. At the Apothecaries, they sell it for two Pence an Ounce. A Day or two following, begin to lessen his Cloaths by Degrees before you turn him out to Grass, which should not be till the fifteenth Day, for by so doing, and not currying him, the Dust will fill the Pores of the Skin, and prevent his catching Cold. Let it be in the Middle of the Day when you turn him into the Field. And about the twentieth of *August* take the Horse up, for then the Grass begins to be raw and phlegmatic. Then, two or three Days after, bleed and drench him, to prevent Distempers which may arise from the Gall, Spleen, and Ranknefs of Blood; but others say, Never purge a Horse just taken from Grass, for that it dissolves and loosens some tender Fat or Humours which will fall into the Legs or Heels, so that the Horse rarely stands dry in the Winter after; but, after six Days, you may bleed him under a Quart, and at Night give him the following Anniseed Cordial, which is a gentle Opener: — Boil half a Pound of Anniseeds, in a Quart or two of Ale; pour it upon half a Pound of Honey into a Bowl, brew it till Blood-warm, and give it in a Horn, Seeds and all; then feed as usual; give warm Water that Night, and next Morning cloath him: A Mash will do well the same Night. But thick-skinned Horses may be kept out all the Year, if they are allowed an open sheltered Place to feed on Hay between Whiles, and sometimes on Corn, that they may go out and in at Pleasure. An Example of this may be seen in *Great Gaddefden* Mash, where

a considerable Number of fine bred Horses are constantly kept; and thus the Saddle-breed may be kept to hunt and labour, much better than in a confined Place; for, indeed, a Stable is but a Sort of Prison to this useful Animal, whose flashy Grass-diet is, by this Means, bound in, and made to produce good Nourishment, his Limbs kept limber, his Hooves cool and moist, his Wind sound, and the whole Horse preserved to a great Age. A certain Gentleman, that lives about four Miles from me, had a Saddle-Horse with such greasy Heels, that he was declared incurable, which obliged him to keep the Beast all the Year out at Grass in the open Air, only, in snowy Seasons, he would give him some Hay, and now and then some Corn, which, with what Grass he could get, enabled him to carry his Master whenever he wanted him, and, this for many Years, till at last the Horse got intirely cured. Some, again, make it a standing Rule to bleed a Horse after he has been a Week at Grass, by taking him into the Stable in the Morning, and, after the Vein is pinned up, to let him stand till the Cool of the Evening, before he is turned out, in order to prevent the Staggers, or other Distempers, which might otherwise breed from a rank Blood, and holding his Head downwards.

The Shapes and Marks of a good Cart-Horse. He should have a thick Shoulder, and a broad Chest, overladen with Flesh, hanging forward, and heavily projecting over his Knees and Feet, a short Back, short Joints, flat-legged, full-eyed, and wide Nostrils, with a wide Mouth, and round Buttocks. Of such, a Team should be composed of one Height.

The Shapes and Marks of a good Saddle-Horse. He should have the Eyes and Joints of an Ox, the Strength and Foot of a Mule, the Hooves and Thighs of an Ass, the Throat and Neck of a Wolf, the Ear and Tail of a Fox, the Boldness of a Lion,

the

the Quick-sightedness of a Serpent, and the Lightness and Nimbleness of a Hare : A high Pace, a deliberate Trot, a pleasant Gallop, a swift running or rebounding Leap, and quick in Hand. Or take it thus : The Hoof should be narrow and black, his Pasterns straight and upright, Fetlock short, Legs straight and flat, Knees long, lean, and round, Ears long and sharp, Sides and Ribs bearing out, and close shut at the Huckle-bone, Neck long and reared, wide-jawed, Breast large and round, Fore-head lean and large, Withers sharp and pointed, Back short, Rump round, plain, and broad, a large Space between his Buttocks, or what is called *wide-gascoigned*, and his Yard and Stones small. In short, that Saddle-Horse, which has thin Shoulders and a flat Chest, with his Fore-feet standing boldly forwards and even, his Neck rising semicircular from the Point of those thin Shoulders to his Head, with the before-mentioned Marks, may be justly said to have a light Fore-hand, and is a right useful Horse for a Saddle. To which I add, that a crooked or low-backed Horse, with thin Gascoigns, is, commonly, not only weak, but too often proves unhealthful either for Cart or Saddle.

The Description of a good Stallion. Their Improvement, of late Years, has been so much endeavoured by the Breed of the *Turkish, Spanish, Barbary, German, Hungarian, Neapolitan, Sardinian, Danish, Swedish, and Flanders* Sort, that a true *English* Horse is hard to be found. For it is certain, that the *English* Mare's, Food and Climate gives a considerable Advantage to the foreign Blood, as well as that to her ; so that in *Northampton, Leicestershire, Yorkshire*, and other Northern Counties, the best Saddle and Cart-Horses are now bred, as being Countries which abound in vast Tracts of cheap Land, and where they are most careful in their Breed. The *Danish* and large *Flanders* Horses pro-

produce a valuable Draught Sort, and particularly the former, who is a hardy, handsome, short-jointed, and very strong Horse, excelling for the Collar and Harness, as much as the *Turkish*, *Spanish*, and *Barbary* do for the Saddle. On the Choice of a Stallion, depends a good Issue; of this take Care, for the Parents Distempers are generally hereditary. I have heard of some Owners so knavish, as to use a blind Stallion to increase Custom; or because the Horse is a fine bred one. A Horse is fit to cover Mares at four Years old, and will hold till he is ten, twenty, or longer, as he is in Goodness, and the Owner is prudent in the Management of him. A Stallion, that was allowed to cover six or eight Mares in a Year, has been found heartier at thirty, than another at twenty Years old, who received all the Mares that came. For it is by the Means of an old, weak Stallion, that so many Horses lose their Eyes, the common Allowance being but sixteen Mares in a Season. Their blind Colours are reputed to be a very dark Grey, the Flea-bitten, White-spotted, Peach-blossom, and Roan; Black the strongest, and White the weakest Colours. A Horse is at his full Growth at seven, and a Mare five Years old. A Grass-feed is best for a Stallion, because he will be in less Danger of breaking his Wind on that, than on dry Meat. Some are of Opinion, that a Stallion should never be under five, nor above fourteen Years of Age. If he serves only seven or eight Mares in a Season, he will work the rest of the Year after, and last six or seven Years; but, if kept constantly Abroad with them, he will last but three well. To this I shall only add, what a chief Groom told me, whose Master keeps the *Danish* Breed for his Coach and Cart: The *Danish* Horse, he says, is a black, beautiful, middle-sized, nimble Horse, for the Coach; requires to have a great deal of Flesh on his Back, or else he will not

work

work to the Purpose; nor will he, at any Time, bear a Whip, for, if it is much used on him, he will refuse Drawing, and, at best, will not stand to his Collar in Case of Necessity, like a true bred English Horse.

To make a barren Mare take Horse. Stamp a good Handful of Leeks, with six Spoonfuls of Wine, and a little Powder of Cantharides, which strain through a Cloth with Water, enough to serve her twice, to be put into her Nature by a Clyster-pipe made for that Purpose; then, at three Days End, offer her the Horse, and, if he covers her, wash her Nature with cold Water twice together.

A second Way. Take a little Quantity of Nitrum, Sparrows-dung, and Turpentine wrought together, and make like a Suppository, which put into Nature, and it will do.

A third. Give two Quarts of Hempseed with Oats, Night and Morning, for eight Days before.

A fourth. Boil good Store of the Herb Agnus in her Water.

A fifth. In case you have any particular Opportunity of a fine Stallion, and your Mare is not naturally disposed to receive him, or will not stand to be covered, then give her a Drink of clarified Honey and new Milk, mixed together, which as soon as done, pat her Hind-part with a Bunch of Nettles, and immediately after offer her the Horse, whom she will readily receive.

The Management of a breeding Mare, and her Foal. A Mare should be three Years old before she takes Horse, and then she will hold it to ten well, or worse till twenty. Some will breed every Year; some again every second; others will let two Years pass between. The Time of taking Horse, that the Mare may foal at Grass, is from the latter End of May, to the End of July, for she goes eleven Months and nine Days, and so many more as she

is Years old above eleven Months. It is a common Maxim, that a Mare should never take Horse, while she suckles her Foal. Some bring an ordinary Stone-Horse first to one Side of the Pails, Rails, or other such Place abroad, to woo and try the Mare, and, when she is perceived to stand the Horse, the true Stallion is brought out, and covers her twice or thrice, for which Purpose the Horse should not drink his Fill over Night, lest he break his Wind; others will let her take the same Horse the next Morning, and some the Morning following that. After Covering, lead the Mare into a Pond up to her Middle, and let her drink but little; from thence have her into the Stable, and keep her out of Hearing of the Horse. Others, more curious, will make a Place in the Stable for the Stallion to put his Head through, and, when they bring the Mare to him, they can know if she is prompt. They also observe to throw a Pail of Water on her Hind-part, as soon as the Covering is over, to restringe her Parts, as we do to our Hogs and Cows. Others will directly ride her down Hill, or on plain Ground, for Half an Hour. But these are not quite so right, as those who bleed her just before she is horsed (as I shall by and by further observe) and ride her as soon as she is pinned up. As to our Cart-breed, when they think the Mare will abide the Horse without Kicking him, they bring the Stallion and Cover in Hand, and in a Month's Time it may be known whether she stands her Horsing; if not, have her to Horse again. The most dangerous Time for the Cart-sort is, when the Mare is quick about *Michaelmas*, for then a small Strain makes her cast her Colt; but afterwards, with Care, there is no great Danger, which makes them work a Mare sometimes till she foals in her Harness; but this is carrying the Matter too far; however, they may guess within three or four Days

Days of her Foaling, by the Wax at the End of her Teats; and, that she may have Milk enough, some put her to Grass, a Fortnight, or more, before she foals. Weaning Colts are ordered variously; some Farmers wean at *Michaelmas* for their own Use, saying, Longer makes the Mare faint, and the Colt little the better; besides which, it enables the Mare to take Horse the sooner next Year, and prevents her casting her Foal: But, if the Colt is for Sale, in some Parts, they let them suck till *Martinmas*, which is the eleventh of *November*, as they do in *Warwickshire*, for selling their Colts at *Rugby-Fair*, where many are sold on this Day, though it is possible to wean a Colt at a Month old; but then it must have Milk twice a Day given it in a Bowl with soaked Oats besides, till ten Weeks old, and then they commonly give it Whey twice a Day, or oftener, at Grass. The first Winter they must be maintained with Hay and Oats twice a Day. The next Winter they will live on Straw, like a Horse; but they should never be backed till three Years old, nor drawn till two; though a Colt is more tender at three than two, because it then sheds its Grinders. Others won't wean a Colt till *February* following, and then take them out of Hearing of their Dams. Colts are not cut till about a Year old, but some let them alone till two, three, four, or five. In the North, they sometimes spay a Mare at a Month old, and then they become larger and tougher than a Gelding; but their speedy Growth is apt to make them over-run in the Joints, and be weaker in them Parts, than if they were never spayed. Some are so curious in the Management of their Colts, that they always give them two Purges, and a Cordial-drink, upon their taking them into the Stable for good, to kill Worms, and prepare their Bodies the better for House-feeding. The first Foals are commonly small and puny. A full aged Mare breeds the strongest Colts; and an old

A a

Stallion

Stallion may get as stout Colts, as a younger Horse. In this Month, get your Cart-mares leaped.

A further Account of the breeding Mare. The *English* Mare is allowed the best of any to breed by, and, by some, thought fitter at four, than three Years old; for that, after ten, she declines. Before Covering, let her be well fed in the Stable for six Weeks, and, if you would have her take sure, bleed her five Days before she takes Horse; then tie her to a Post Abroad, and bring her out a Jade Stone-horse to dally and provoke her; after which, in a Morning fasting, let the true Stallion cover her: Then throw a Pail of Water on her Hind-part, and take her out of Hearing of the Horse, but not to eat nor drink for five Hours after; then give her a Mash, and, after that, Water with Bran in it; for, in this Case, it is necessary to feed her as sparingly, after she has taken Horse, as you did plentifully before. Her Signs of Standing are, a good Stomach, not Neighing after a Horse, pisses not often, opens and shuts not her Shape frequently, nor her Shape grow gaunt after it, nor her Hair sleek. Others will put a Mare and a Horse together three or four Nights, and take him away every Morning to feed him well all Day, but the Mare sparingly. Then keep the Mare in the House a Month, before she is turned out to Grass, and taken up at *Michaelmas*. If she cannot foal, give her the Quantity of a Walnut of Madder-root Powder, dissolved in a Pint of warm Ale; it is ground, and sold by the Drug-gist; and, if she does not void her Secundine, put a Handful of Fennel-seeds into a Pint of Strong Beer, and boil them with a fourth Part of Sweet-oil; pour this into her Nostrils lukewarm, and stop them for some Time. When she has foaled, milk her before the Colt sucks; and, if her Bag is hard, boil some Lavender and Spike-leaves in her Milk, and with it chafe the Part warm. Hot Water must be mixed with
a little

a little Bran, and Mash given her. At a Month's End give her a Mash with Flour of Brimstone and Savin in it; it will do the Colt Good; then work her, but do not let the Colt suck when she is hot. Some say, Winter Foaling is bad, because there is no Grass: Others, that it is best; because, if the Mare is kept in a warm Stable, and well, the Milk is better, and will make a larger and tamer Colt. To prove if a Mare is with Foal, pour a Spoonful of cold Water, or Vinegar, into her Ear, and, if she only shakes her Head, it is a Sign she is with Foal; but, if she shakes Body and all, it is a Sign she is not. If she is subject to lose the Foal, give her a Mash of Malt now and then; if she has lost it, boil Mugwort in a Quart of Brine, and give the Liquor. Always set down the Day of Horsing, that you may the better watch her Foaling, and be the readier to assist with Medicine and Hand, if Occasion require. Then, to make her foal, give her some Polypody in a Pint of warm Ale. When foaled, give her a Mash, three Days together, of three Pints of Meal in warm Water, into which put a Handful of Salt; and then, if the Weather is seasonable, she and her Colt may go to Grass. Some, indiscreetly, work a Mare in a Week's Time after Foaling; but, if you will have the Mare and Colt improve, let it be a Month first. After the Colt has sucked a whole Winter, its Mouth will grow hard; then put it into a Stable, without Tying, well littered, and fed with Oats, Bran, and good Hay; but harder Meat than this it should not eat, lest it strain its Eye-strings, and blind it. This Way of Weaning makes stronger Horses by far, than those weaned at Grass. A Horse is not fit for much Fatigue, till after he has cut his Tusshes. I shall conclude this Article with the following Hints: That, whereas it is too common a Fault, with the *English*, to break their Colts too young, before their

Joints and Sinews are well knit, their Hooves tough, their Eye-sight good, and their Chine full strong, which often is the Occasion of Blindness; brittle-hooved, weak-backed, shackle-hammed, full of Windgalls and Splints; and thus a Horse becomes old and stiff at ten Years of Age. On the contrary, if he is broke late, at three or four Years old, he will last a good Horse till Twenty-five. This is a Misfortune, they say, is generally seen in the *Spanish* Breed, whose Country, being open, obliges them to take up their Horses too young; which, with us, may be prevented by our inclosed Grounds, and, by a right Management, have the best of Horses, that none breed, but ourselves; because, in other Climates, they degenerate, and which will always occasion a good Market for ours, in foreign Parts.

The particular Management of a certain Gentleman in the Breed of Race-horses. This Gentleman keeps a considerable Number of the Race-breed, and endeavours, all he can, to make his Mares bring the right Sort; and, to cause them to stand to their Horfing, he always bleeds, and throws Water on the Mare, as soon as horfed: But, when his Groom has the sole Management of the Affair, he strikes the Mare first with his Flegme without a Cord, and lets her be directly horfed; then he cords, till she has bled enough; for, if he struck her after Horfing, it might fright her, and spoil the Intention, as it happened to the same Gentleman in another Way; and that was, when he had several Mares horfed in one Day, he put all of them together in one close warm Stable, which prevented most of their Standing to their Horfing; for here they dallied and provoked one another, almost as if a Stallion had been among them. But, since that, he has learned better, and puts each Mare in a Stable by herself till the Evening, and then turns them out in different Fields; which cools her Body, and keeps them

them quiet ; which is better than Turning her out in the Day-time, for then she might see, and be more liable to hear others. It was this same Gentleman, that had got a Receipt to make a Drink, that would cause a Mare to take Horse, and, by other Directions, to stand to it : But, after several Trials, it was proved not to answer, and then it was laid aside. Now, in order to have stronger Colts, than his Neighbours, he lets some of his Mares be horsed in *December, January, February, or March*, that, by such forward Horsing, the Colts may be the better enabled to run a Match with Colts of the same Number of Years; by which there may a considerable Advantage accrue to the Owner: For, although the Years of their Age may be reckoned alike, yet there may be half a Year's Difference by the forward Horsing; besides which, as such forward Colts are kept in the Stable, on Milk produced from Hay, Corn, and Mashies, such Management must still add to the Strength of the Beast, by the more nourishing Nature of such Milk, than that produced by Grass.

To preserve Colts, when the Mare dies in Foaling. This often happens, and then, without good Management, the Colt dies also; therefore one, over nice, used to prepare Cows Milk, sugaring it, and heating it over the Fire; but this did not answer, till the following Method was made Use of, *viz.* By milking a Cow into a Bowl, and then putting a Finger immediately into the Colt's Mouth, and forcing its Chops into the Milk, it would suck it; and go on, till it would drink the Milk of itself, and be nourished wholly by it, till it would eat Hay and Corn. It is said, the *Arabs* generally let their Fleet-bred Colts suck Camels, because these Creatures, being of a greater Bulk than Mares, give the greater Quantity of Milk, which, in Course, brings on

on a speedier and stronger Growth ; for, whether Camel's, or Mare's Milk, it is all one to the Colt.

The Cause of Blindness in Horses. There are several Incidents, that may occasion this Misfortune : First, hereditary, by Means of a blind Sire. Secondly, by the Stallion's Leaping too many Mares in one Day ; for it is such an one, that not only gets weak-eyed Colts, that soon become blind, but also unhealthy Jades. In *Shropshire*, one Stallion leaped fourteen Mares in one Day, as I was credibly informed by a Nobleman's Pad-groom, and only the last proved with Foal. One of this Sort fell to my Share at *Dunstable-Fair*, in 1739, where I bought, I thought, a very promising Mare three Years old, and had a good Account of the Sire and Dam, she came of ; for she was bred but at a Village near *Leighton-Buzzard*, and had the Marks of a good Creature. But I was deceived ; for her Eyes began to fail at four, and she proved not only a Jade in the Collar, but a most stubborn, unlucky Bitch besides. If the Boy struck her at Plough, she would answer it every Time, and give a vehement Strike out, insomuch that I was forced to have Trace-ropes made on Purpose to hook to the Collar, that the Boy need not go near her Hind-legs ; and, in the Team, if she was much whipped, she would sit on her Arse, and defy any such Remedy. In short, after Keeping her about a Year, I luckily got a Swap at the same Fair ; and thus as she came, she went : However, I afterwards told the Buyer of her Kicking, to which he slightly answered, He must take the more Care of her. *Thirdly*, By feeding indiscreetly Colts too soon with hard Corn. *Fourthly*, By working them too soon and too hard ; which is a Fault, we Farmers are too commonly guilty of ; for to work Colts at two Years old, against aged Ranch Horses, is certainly the Cause that many fall blind, and become weak-backed and shackle-hammed.

Fifthly,

Fifthly, By a Horse's holding down his Head for a considerable Time together, which sometimes brings a creamy Humour into one, or both Eyes. I had a Horse, that always suffered at Grass this Way, till he lost one Eye intirely. *Sixthly*, By frequent and violent Purgings, that not only endanger his Eyes, but his Life too. *Seventhly*, By taking a Horse off a plentiful Living to Scarcity, and then it is, that his Eyes sink. So a Horse, when he is hard rid on poor Feed, is apt to suffer by the Consumption of his Eyes, for Want of a due Nourishment from his Blood.

Warranting a Horse. By Custom, a Jockey is to warrant a Horse, when sold, against Glanders, or other Unsoundness, hot or cold; but not against those Infirmities that may be seen: In which Case, the Buyer is to re-deliver the Horse in nine Days Time, and have his Money again, or else the Law will oblige him to it, as was, by a particular Case, a few Years ago, proved at *Hertford* Assizes; where the Buyer recovered his principal Money, with Damage and Costs, for the Sale of a foundered Gelding, warranted sound.

C H A P. XV.

Of Trees and Insectss.

TO improve the *Cherry-tree*. If, in the last Month, you have not drawn the Point of the Knife down the outward Rind of standard Cherry-trees, neglect it no longer, than the very Beginning of this; and then it must be done as shallow as possible, that only the very outward Bark may receive the Cut, lest, otherwise, the Sap and Gum be discharged by the Slit in too free a Manner; for, if this Operation is not done, this Hoop-bark will certainly

tainly impede the Growth of the Tree's Bulk. Mr. *Laurence* says, that, by this very Means, a Cherry-tree will grow bigger in one Year, than, if neglected, in fifteen : I have Hundreds of young Trees, that I, every Year, cut the Bark off.

Several Remedies for the Blights of Trees. Now look to your Standard Fruit-trees, this being commonly the most dangerous Time for the first Breed of Insects on them, who do a great deal of Mischief, especially in dry Seasons ; for, when this happens, as it did in the Year 1736, a great deal of Fruit is generally destroyed. In this Case, therefore, use these Remedies : Burn Horse-litter, or other Straw, under your Trees ; or else, with a *Dutch Squirt*, throw a good Quantity of Water on them ; or carry up some Pails of Water, and throw over their Tops, and it will secure your delicate *May Duke* Cherries in particular ; which as they seldom grow on a very large Tree, it is the easier done. All this I have known to succeed to Admiration ; for, about the latter End of this Month, an Insect seldom, or never, misses attacking our green Cherries with so much Diligence and Fury, as to spoil great Numbers of them, by eating into their very Stone ; and, because of this hollow Operation, we call them *Ladle-men*, or the Green Fly, or Bug. The latter End of this Month, there were also, in this dry Season, vast Swarms of exceeding small Insects, thought to be brought over by Easterly Winds, that settled on our Apple and Pear-trees, and there made their Cobweb-Nests. The Butter-flies also laid their Eggs, and bred Caterpillars, that over-ran many Trees, especially those that stood in low Grounds, out of the Power of Winds, and eat up both Fruit and Leaves. So likewise did these Devourers seize on the Beech-trees, where they stood so thick, as to hinder the Benefit of Winds, and thereby became so plenty, and spun so many Cobwebs, as made

it

disagreeable to walk near such Trees. If your Trees grow in Hedges, and you cannot well burn your Straw under them, lay such Rubbish-straw at a proper Distance from the same, and set it on Fire, when a strong Wind blows; for, by this, the Smoke will be carried among the Caterpillars, or other Insects, and kill them.

Cleaning Trees. Now make Use of the Knife and Hair-cloth; the first, when the Body and Arms of your Standard Fruit-trees are wet, should be scraped with the Back of a Knife, to rub off the Moss, and dilate the Bark, for the more free Admission of the vitrous Air and Rains into the same. The second will answer the like Purpose, and both will add a new Fertility to the whole Tree, and, consequently, be a Means of increasing its Fruit.

The Breed and Mischief of the Slug, or naked Snail. This Insect, as far as I can understand, has escaped the Notice of all Authors; and therefore I shall, here, be the more particular in my Account of it. There are two Sorts of Slugs, or rather two Colours of them (occasioned, perhaps, by their Youth and Age) for they both agree in Bigness, Shape, and in their Mischief for about nine Months in the Year; are white and black, an Inch or more long, but have no Shell. The Slug is bred, both in Field and Garden, by small Eggs, that they commonly lay in *August* in the Ground; and here, in many Places, they lie undisturbed till *Candlemas*, when they crawl out of their Nests, and begin to feed on the sprouting Vegetables till *November*, if *October* is a mild Month. Some think the old ones die every Year; others, more probably, that they wrap themselves up in dead Leaves, Grass, or other Stuff, for their Preservation in cold Seasons: Yet, when Winters have been attended with long and violent Frosts, as that was in 1739, it kills most of these Insects, as, I am sure that did; for we have had none

to signify in the two following Summers. In some wet, hot Summers, they do a Power of Mischief. My Neighbour sowed Pease in *February* in the Field, and, by the first of *April*, they were eaten up. In *April*, 1738, the Slugs were so thick among the random-sowed Pease, that Pottles of these Insects might be gathered in a little Field. The first green sweet Sprout of some Pease were eaten, before they could be well seen; when this happens the Crop is spoiled. Or, if they let it alone till the Stalks get up, and eat them down afterwards, it is of bad Consequence; because if the Pea happens to make a second Shoot, as sometimes it does, and grow the thicker for it; yet then there is commonly a great deal of Straw, and but little Corn, by Reason of their late Kerning. In *September*, they will lie and eat Holes in the Turneps, and get, two or three together, into a Hole. A Neighbour of mine gave one Plowing to a Wheat-stubble, and harrowed in Rape and Turnep-feed together, for the Sheep to feed on their Leaves; but the Slug presently eat up all, while they were in their two seedling Leaves. They will feed on young Carrots and Turneps to that Degree, that many thousand Acres of the latter have been destroyed in one Year, and that after the Land has been sowed two or three Times in one Summer. It is these Insects, that help to bring on the Rot in Sheep, by their slimy, watery Bodies, which the Sheep take up in their Feeding on Commons, and elsewhere. In short, the Slug not only hurts young Carrots, Pease, Turneps, Clover, Rape, Flax, &c. while they are in their sweet second Leaf, but continue their Mischief to the Pea in particular, so long, that it is *Holy Thursday*, very often, before the Farmer can tell how it will be with them. They will eat Thatches, or Tares, ragged, but not so easily kill them, as the Pea. The Bean they never hurt, because it is tough and bitterish. It is in warm showery

showery Weather, that they do the most Damage; for in a dry Time they disappear, and, by that, the Plough, and the Harrows, many of them are killed. In the Day, they lie in little Holes under a young Turnep, which serve as Passages to their Cells; and, in the Night, Thief-like, they do their Mischief. If the Summer is for the most Part dry, they do but little Harm till *September*. This Insect is likewise the Pest of the Garden, as well as the Field, where he devours young Cabbage-plants, Kidney-beans, and many other culinary Vegetables, to the almost Ruin of the laborious Gardener, who knows no better Way to destroy them than with his Fingers, or Scissars, whereby he loses a great deal of Time and Pains. Therefore I shall, in one of my Monthly Books, discover a noble Ingredient, that, as I have hinted before, will infallibly prevent the Slug's doing any Mischief to Vegetables, it is sowed upon, and that in the wettest Weather; for it is no Powder, but will dress the Land at the same Time: So that neither the Gardener, nor Farmer, need fear losing their Crops of Turneps, Cabbages, or any other, by the Slug, as heretofore.

The Nature and Mischief of the Fly. As the Slug does his Mischief in the Night, this Ravager does his in the Day, and so furiously attacks young Turneps in their sweet seedling Leaves, that, in some Years, it is a Rarity to see an Acre of well planted Turneps. In *April*, they have been seen to fly in Swarms, just above-ground, a little before a Shower of Rain, skipping and flying from one Turnep to another, till they destroy a whole Field in a short Time. Its black Body is a small Matter bigger than a large Flea, and, at Night, lies on the Ground, under a Turnep-leaf. This Insect, with the Slug and Caterpillar, are all concerned in the Ruin of the Turnep; but the Fly is reckoned by far the archest

Enemy, because, in almost all Weathers in the Summer-time, he commits his Rapine, by gnawing the young Turnep, while it is in its second, luscious, tender Leaf; for, when it has made its third, he then often refuses it, as being too tough and bitter. It is these Insects, that bring the Farmer under very heavy Losses of Time, Labour, and Money, by spoiling his Crops; which to prevent, there have been several Antidotes invented: As Soot, Lime, Ashes, Tobacco-Sand, and, in particular, the Horse-hair Rope, and Glass in Powder to keep off the Slug: But, as all these have been either found ineffectual, or too chargeable, I shall in my next Month give you a Receipt, that will secure an Acre of Turneps from the Fly (but not the Slug) for Two-pence Charge; for I do it, by applying something to the Seed, for three Days together, before Sowing, and is what I every Year practise, to the Saving of my Turnep-crops. Now, if these two Secrets answer what I here assert they will do, and which I am certain they will, by full Experience; how valuable they will be to the Farmer in particular, and to the Nation in general, I leave to the Thought of my Readers.

F I N I S.



m-
the
ous,
he
ter.
ery
oil-
een
hes,
hair
ug:
ual,
give
neps
ence
to the
and
my
fwer
I am
able
d to
nt of